MARANA
2010 GENERAL PLAN

Ratified May 17, 2011

MARANA RESOLUTION NO. 2015-037

RELATING TO DEVELOPMENT; ADOPTING MINOR AMENDMENTS TO THE TRANSPORTATION ELEMENT OF THE MARANA GENERAL PLAN BY REVISING THE ROAD NETWORK EXHIBIT TO DELETE THE PROPOSED RELOCATED TANGERINE ROAD INTERCHANGE, ESTABLISH TANGERINE FARMS ROAD AS THE FUTURE PRIMARY CONNECTION TO THE MARANA ROAD TRAFFIC INTERCHANGE, REDUCE THE PLANNED RIGHT-OF-WAY WIDTH OF TANGERINE ROAD FROM 350 TO 250 FEET, AND REDUCE THE PLANNED RIGHT-OF-WAY WIDTH OF MARANA MAIN STREET FROM 90 FEET TO 80 FEET; AND BY INCORPORATING LANGUAGE INTO THE GENERAL PLAN TEXT AUTHORIZING THE TOWN ENGINEER TO IMPLEMENT ENVIRONMENTALLY SENSITIVE ROAD DESIGN BY REDUCING THE STANDARD RIGHT-OF-WAY WIDTH FOR CERTAIN ROADWAYS IN ENVIRONMENTALLY SENSITIVE AREAS

WHEREAS Town of Marana Resolution 2010-120 adopted the Marana 2010 General Plan and called for a May 17, 2011 special election for voter ratification as required by A.R.S. § 9-461.06 paragraph M; and

WHEREAS the Marana 2010 General Plan was ratified by the voters on May 17, 2011; and

WHEREAS the General Plan is a dynamic document that establishes policies and goals to guide development within the community, and discusses strategies to guide elected and appointed officials and Town staff to achieve its defined goals; and

WHEREAS conditions or elements of the General Plan can change or become obsolete as the community develops; and

WHEREAS A.R.S. § 9-461.06 and the General Plan itself define a major amendment as a substantial alteration of the Town's land use mixture or balance as established in the General Plan land use element; and

WHEREAS the General Plan amendments adopted by this resolution do not meet the definition of major amendment, and are therefore minor amendments; and

WHEREAS the Town of Marana has provided the notice and held the public hearings required for the adoption of the General Plan amendments adopted by this resolution; and

WHEREAS the Mayor and Council of the Town of Marana find that this resolution is in the best interests of the Town of Marana and its citizens.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE TOWN OF MARANA, as follows:

SECTION 1. Marana 2010 General Plan Section 6 (Built Environment Theme), Exhibit 6.1.A (Road Network – Proposed Major Routes) is hereby amended as follows:

A. The Tangerine Road/Interstate 10 traffic interchange location is amended to delete the "Relocated Tangerine Road Interchange," leaving only the currently existing Tangerine Road traffic interchange alignment and location.

B. The Marana Road/Interstate 10 traffic interchange is amended to show Tangerine Farms Road as the primary connection instead of Marana Road.

C. Tangerine Road right of way is reduced from 350' to 250'.

D. Marana Main Street right of way is reduced from 90' to 80'.

SECTION 2. Marana 2010 General Plan Section 6 (Built Environment Theme), Section 6.1.7 (Issue Identification and Trends) is hereby amended to add the following language to the end of the fifth paragraph:

> The Marana Town Engineer is authorized to reduce right-of-way widths of 150' roads on Road Network Map 6.1.A to 110' in areas identified as "Environmentally Sensitive Lands (per draft HCP)" when the Town Engineer determines, based on best available scientific information, that the reduced width is likely to reduce wildlife mortality.

SECTION 3. The Town Manager and staff are hereby directed and authorized to modify the General Plan documentation and undertake all other and further tasks required or beneficial to carry out the terms and objectives of this resolution.

SECTION 4. All resolutions, orders, or actions of the Town, or parts thereof, that are inconsistent with the provisions of this resolution are hereby repealed to the extent of such inconsistency, including without limitation all of the following in their entirety:

A. Marana Resolution No. 2007-163, approving a proposed alignment for the extension of Marana Main Street north of Grier Road.

B. Marana Resolution No. 2007-164, approving a proposed alignment for the future Tangerine Road Interchange.

C. Marana Resolution No. 2990-178, conditionally reducing the right-of-way width for Tangerine Road in the vicinity of Interstate 10.

PASSED AND ADOPTED by the Mayor and Council of the Town of Marana, Arizona, this 28th day of April, 2015.

Mayor Ed Honea

ATTEST:

Jocelyn C. Bronson, Town Clerk

APPROVED AS TO FORM:

Frank Cassidy, Town Attorney

MARANA RESOLUTION NO. 2015-037

RELATING TO DEVELOPMENT; ADOPTING MINOR AMENDMENTS TO THE TRANSPORTATION ELEMENT OF THE MARANA GENERAL PLAN BY REVISING THE ROAD NETWORK EXHIBIT TO DELETE THE PROPOSED RELOCATED TANGERINE ROAD INTERCHANGE, ESTABLISH TANGERINE FARMS ROAD AS THE FUTURE PRIMARY CONNECTION TO THE MARANA ROAD TRAFFIC INTERCHANGE, REDUCE THE PLANNED RIGHT-OF-WAY WIDTH OF TANGERINE ROAD FROM 350 TO 250 FEET, AND REDUCE THE PLANNED RIGHT-OF-WAY WIDTH OF MARANA MAIN STREET FROM 90 FEET TO 80 FEET; AND BY INCORPORATING LANGUAGE INTO THE GENERAL PLAN TEXT AUTHORIZING THE TOWN ENGINEER TO IMPLEMENT ENVIRONMENTALLY SENSITIVE ROAD DESIGN BY REDUCING THE STANDARD RIGHT-OF-WAY WIDTH FOR CERTAIN ROADWAYS IN ENVIRONMENTALLY SENSITIVE AREAS

WHEREAS Town of Marana Resolution 2010-120 adopted the Marana 2010 General Plan and called for a May 17, 2011 special election for voter ratification as required by A.R.S. § 9-461.06 paragraph M; and

WHEREAS the Marana 2010 General Plan was ratified by the voters on May 17, 2011; and

WHEREAS the General Plan is a dynamic document that establishes policies and goals to guide development within the community, and discusses strategies to guide elected and appointed officials and Town staff to achieve its defined goals; and

WHEREAS conditions or elements of the General Plan can change or become obsolete as the community develops; and

WHEREAS A.R.S. § 9-461.06 and the General Plan itself define a major amendment as a substantial alteration of the Town's land use mixture or balance as established in the General Plan land use element; and

WHEREAS the General Plan amendments adopted by this resolution do not meet the definition of major amendment, and are therefore minor amendments; and

WHEREAS the Town of Marana has provided the notice and held the public hearings required for the adoption of the General Plan amendments adopted by this resolution; and

WHEREAS the Mayor and Council of the Town of Marana find that this resolution is in the best interests of the Town of Marana and its citizens.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE TOWN OF MARANA, as follows:

SECTION 1. Marana 2010 General Plan Section 6 (Built Environment Theme), Exhibit 6.1.A (Road Network – Proposed Major Routes) is hereby amended as follows:

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> The Marana Town Engineer is authorized to reduce right-of-way widths of 150' roads on Road Network Map 6.1.A to 110' in areas identified as "Environmentally Sensitive Lands (per draft HCP)" when the Town Engineer determines, based on best available scientific information, that the reduced width is likely to reduce wildlife mortality.

SECTION 3. The Town Manager and staff are hereby directed and authorized to modify the General Plan documentation and undertake all other and further tasks required or beneficial to carry out the terms and objectives of this resolution.

SECTION 4. All resolutions, orders, or actions of the Town, or parts thereof, that are inconsistent with the provisions of this resolution are hereby repealed to the extent of such inconsistency, including without limitation all of the following in their entirety:

A. Marana Resolution No. 2007-163, approving a proposed alignment for the extension of Marana Main Street north of Grier Road.

B. Marana Resolution No. 2007-164, approving a proposed alignment for the future Tangerine Road Interchange.

C. Marana Resolution No. ~~2990~~ 2009*-178, conditionally reducing the right-of-way width for Tangerine Road in the vicinity of Interstate 10.

PASSED AND ADOPTED by the Mayor and Council of the Town of Marana, Arizona, this 28th day of April, 2015.

*6/10/2015 correction by the Town Attorney, by authority of Marana Town Code Sec 1-4-5.

Mayor Ed Honea

ATTEST:

Jocelyn C. Bronson, Town Clerk

APPROVED AS TO FORM:

Frank Cassidy, Town Attorney

MARANA RESOLUTION NO. 2011-54

RELATING TO ELECTIONS; DECLARING AND ADOPTING THE RESULTS OF THE GENERAL ELECTION HELD ON MAY 17, 2011

WHEREAS the Town of Marana, Pima County, Arizona, did hold a general election on the 17th day of May, 2011, for the ratification and approval of the 2010 Marana General Plan and the Trico Electric Cooperative Franchise Agreement; and

WHEREAS the election returns have been presented to and have been canvassed by the Town Council.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE TOWN OF MARANA, PIMA COUNTY, ARIZONA, AS FOLLOWS:

SECTION 1: That the total number of cards cast at said general election, as confirmed by Pima County, was 3345.

SECTION 2: That 3236 early ballots were processed and counted; 0 ballots rejected.

SECTION 3: That 12 provisional ballots were received; 11 ballots verified and counted; 1 ballot unverified and uncounted.

SECTION 4: That the votes cast for the 2010 Marana General Plan are as follows:

Vote Total

For: 2,741 Against: 553

SECTION 5: That the votes cast for the candidates for Trico Electric Cooperative Franchise Agreement are as follows:

Vote Total

For: 2737 Against: 367

SECTION 6: That it is hereby found, determined and declared of record, that the measures did receive more than one-half of the total number of valid votes cast, and the measures are ratified and approved.

SECTION 7: This resolution shall be in full force and effect immediately upon its adoption.

PASSED AND ADOPTED BY THE MAYOR AND COUNCIL OF THE TOWN OF MARANA, PIMA COUNTY, ARIZONA, this 24th day of May, 2011.

Mayor Ed Honea

ATTEST:

Jocelyn C. Bronson, Town Clerk

TOWN OF MARANA CORPORATE SEAL ARIZ. 1977

APPROVED AS TO FORM:

Frank Cassidy, Town Attorney

ACKNOWLEDGEMENTS

The Town of Marana has completed this General Plan in response to the Town's desire to refine its vision for the future and consider the dramatic changes that have taken place since the last General Plan Update in 2002. The process for the 2010 Marana General Plan was completed in approximately twelve months with support from many groups and individuals, including outreach to citizens with open house meetings, focus groups, mailings, website responses, and discussions with many individuals.

Marana Town Council

Mayor Ed Honea
Vice Mayor Herb Kai
Russell Clanagan
Patti Comerford
Carol McGorray
Jon Post
Roxanne Ziegler

Marana Planning Commission

Chairman Norman Fogel
Vice-Chair Gary Pound
Marcia Jakab
Jeffery Adragna
Billy Schisler
Michael Wiles
Tina Le Page-Wood

2010 General Plan Project Team

Kevin Kish, AICP	Development Services General Manager
Cynthia L. Ross, AICP	Planner II, Long Range Planning
Jenna Reilly	Planner I
Carrie Jacobi	Development Coordinator
Terri Byler	Executive Assistant Development Services
Brian Varney	Planner II
Chris Mack	Senior GIS Analyst
Bret Canale	GIS Database Analyst
Lacey Bowden	Executive Assistant Technology Services
Holly Orloff	Code Enforcement Officer
Rashel Weinzapfel	Code Enforcement Officer

Focus Groups/Commissions

Affordable Housing Citizen Advisory Commission
Agriculture Focus Group
Business and Economic Development Citizen Advisory Commission
Development/Homebuilder Focus Group
Habitat Conservation Plan Stakeholder Working Group
Habitat Conservation Plan Biology Team
Marana Chamber of Commerce
Metropolitan Energy Commission
Mining Focus Group
Parks and Recreation Citizen Advisory Commission

2010 General Plan Technical Advisory Committee

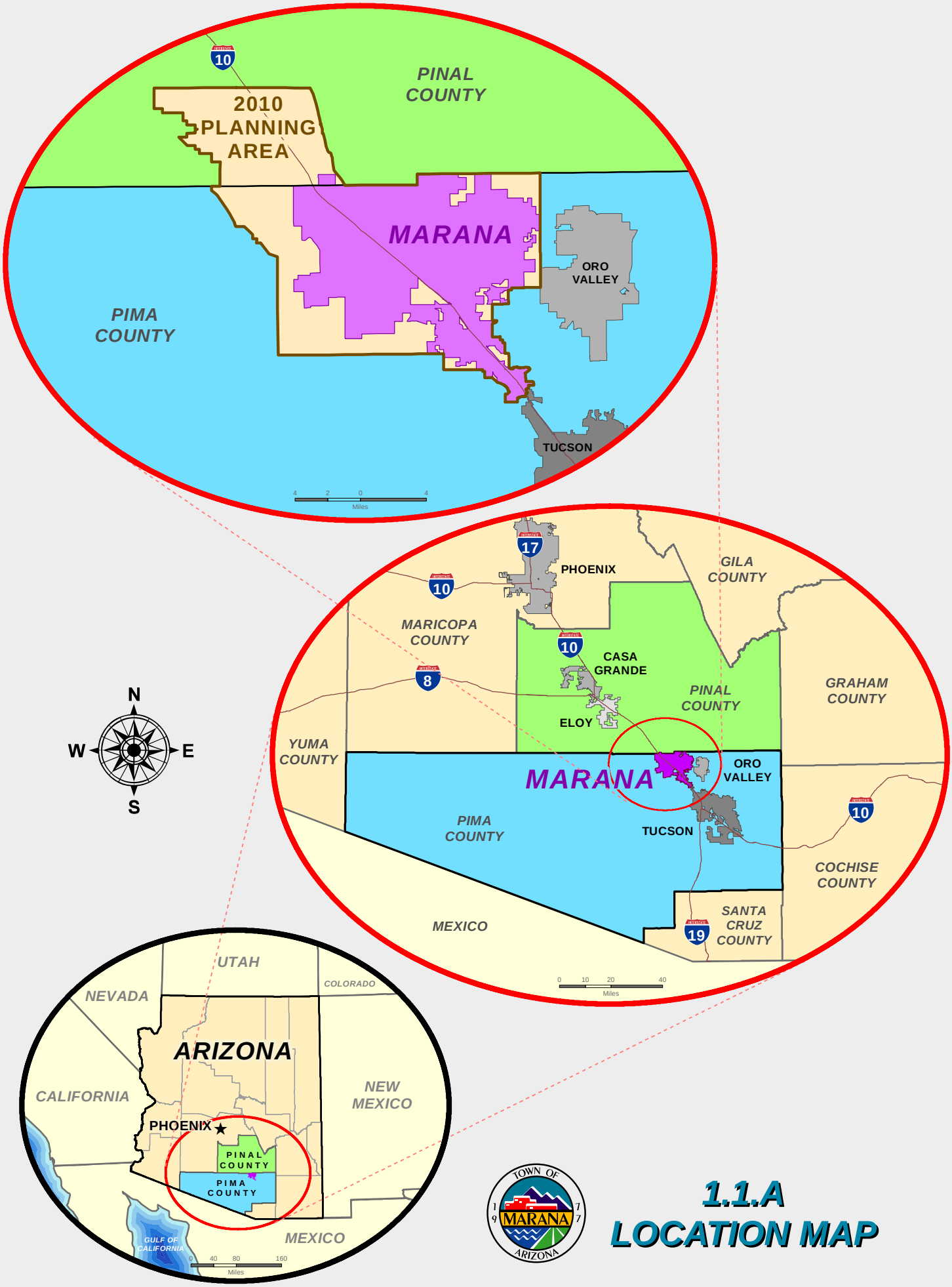
Gilbert Davidson	Town Manager
Deb Thalasitis	Former Assistant Town Manager
Rodney Campbell	Community Relations Officer
Kevin Kish	Development Services General Manager
Keith Brann	Town Engineer
Jennifer Christelman	Environmental Engineering Division Manager
Fernando Prol	Traffic Division Manager
Lisa Shafer	Interim Planning Director
Barbara Johnson	Public Services General Manager
Ryan Benavides	Assistant Director Public Works
Dorothy O'Brien	Utilities Director
Ann Meaders	Utilities Operations Manager
Orville Sailing	Public Works Director
Tom Ellis	Parks Director
T. Van Hook	Director of Community Development
Josh Wright	Assistant to the Town Manager
Jennifer Treese	Former Executive Assistant Airport Operations
Gary Hudman	Technology Services Director
Chris Mack	Senior GIS Analyst
Terry Tometich	Former Police Chief

2010 General Plan Element Sub-Committee Leaders

Lisa Shafer	Land Management
Keith Brann	Transportation
T. Van Hook	Housing
Orville Saling	Public Facilities
Tim Mattix	Cost of Development
Dale Bradshaw	Public Safety
Tom Ellis	Parks and Recreation
Josh Wright	Economic Vitality
Monica Valdenegro	Community Involvement
Janine Spencer	Open Space and Trails
Jennifer Christelman	Cultural Resources, Natural Systems
Dorothy O'Brien	Water
Brian Varney	Energy

2010 General Plan Sub-Committee Members

Ryan Benavides	Assistant Manager Public Works
Robert Bereiter	Emergency Planner
Paul Bluemer	Environmental Project Coordinator
Dale Bradshaw	Lieutenant Technical Services Division
Keith Brann	Town Engineer
Shad Bustamante	Engineering Aide
Rodney Campbell	Community Relations Officer
Steve Cheslak	Planner I
Jennifer Christelman	Environmental Engineering Division Manager
Robert Clements	Planner I
Tom Ellis	Parks Director
Paul Froehlke	Senior Plans Examiner
Barbara Johnson	Public Services General Manager
Steve Johnson	Sergeant Administration
Sean Kimble	Northwest Fire District
Kevin Kish	Development Services General Manager
Scott Leska	CIP Engineering Division Manager
Chris Mack	Technical Supervisor
Adelina Martin	Special Events Coordinator
Tim Mattix	Permit Center and Records Manager
Erik Montague	Finance Director
Dorothy O'Brien	Utilities Director
Patrick O'Kane	Contract Analyst
Fernando Prol	Traffic Division Manager
Jorge Riveros	Traffic Engineer
Cynthia Ross	Planner II, Long Range Planning
Orville Saling	Public Works Director
Lisa Shafer	Interim Planning Director
Brian Stein	Utilities Tech Analyst
Janine Spencer	Environmental Project Coordinator
Viviana Torres	Deputy Town Clerk
Jennifer Treese	Former Executive Assistant Airport Operations
Monica Valdenegro	Grants and Housing Coordinator
T. Van Hook	Community Development Director
Diane VanHorn	Former Community Resource Specialist
Brian Varney	Planner II
Steve Vasquez	Planner I
Josh Wright	Assistant to the Town Manager


PINAL COUNTY
2010 PLANNING AREA
MARANA
ORO VALLEY
PIMA COUNTY
TUCSON
Miles
PHOENIX
GILA COUNTY
MARICOPA COUNTY
CASA GRANDE
PINAL COUNTY
GRAHAM COUNTY
ELOY
YUMA COUNTY
MARANA
ORO VALLEY
PIMA COUNTY
TUCSON
COCHISE COUNTY
MEXICO
SANTA CRUZ COUNTY
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E
S
UTAH
COLORADO
NEVADA
ARIZONA
CALIFORNIA
NEW MEXICO
PHOENIX
PINAL COUNTY
PIMA COUNTY
GULF OF CALIFORNIA
MEXICO
Miles
TOWN OF MARANA ARIZONA
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1.1. Introduction

Decisions that communities make about land use, transportation, environment, parks, open space, and community facilities have implications for a community's overall well-being and the quality of life enjoyed by its citizens. The general plan process provides an opportunity to capture the community's imagination about the future and to articulate a collective vision of where the community is headed. The general plan document is an important tool for identifying the new strategies and goals necessary to translate that collective future vision into reality.

1.2. Regional Setting

The Town of Marana is located in between Phoenix and Tucson, in the northwest area of the Tucson metropolitan region (see the Location Map 1.1.A). Marana extended its boundaries into Pinal County in 2007, being only the sixth municipality in the state to be located in two counties. The Town is very fortunate to be bisected by 18 miles of Interstate 10 and the Union Pacific Railroad. Three beautiful mountain ranges hug the outer borders of the town, the Tortolita Mountains to the northeast, Ironwood Forest National Monument to the west, and Saguaro National Park to the south.

1.3. Historical Background

The Town of Marana combines a pleasant rural community with bustling commercial centers. It is the main trade center and community focus for a vast rural area covering approximately 500 square miles. Prime farmland for centuries, Marana has also been a transportation center for farming and ranching. Located where Brawley Wash joins the Santa Cruz River, Indians used the dependable water supply to grow a wide variety of crops. The Spanish came about 1700 and started the first cattle ranches. "Modern" Marana began in 1881 with the railroad. The area was overgrown with dense mesquite thickets and Marana's name derives from the Spanish word maraña, meaning "impassable tangle".

The Town was incorporated in March of 1977. The impetus for incorporation was citizen concerns for control of water and its impact on their (citizens) well-being

and destiny. The original incorporation covered approximately ten square miles. Today, the Town's boundaries encompass over 121 square miles with a population in excess of thirty five thousand. While retaining its rural appeal and agricultural economic base in the northern parts of the Town, Marana is now home to several housing, commercial and industrial developments.

1.4. Municipal Organization

The Town of Marana has a council-manager form of government, a common form of local government. Policymaking is vested in elected representatives and management in an appointed professional manager. Legislative authority for the Town of Marana is vested in a seven member Mayor and Council. The Vice Mayor is selected by the Council from among its members. Council members serve four year staggered terms.

The Council fixes the duties and compensation of Town officials and employees, and enacts ordinances and resolutions relating to Town services, taxes, appropriating and borrowing moneys, licensing and regulating businesses and trades and other municipal purposes. The Town Council appoints the Town Manager who has full responsibility for executing Council policies and administering Town operations. Town employees are hired under personnel rules approved by the Council. Functions and operations of Town government are provided by a staff of approximately 298 (full-time equivalent) employees.

1.5. Planning Area

The Planning Area for the Marana 2010 General Plan extends beyond Town boundaries to adjacent areas that may affect, or be affected by, growth and development in Marana. The Planning Area defines areas of influence where the Town can more closely monitor development projects, coordinate actions with adjacent jurisdictions, and consider future annexations. More information about the planning area can be found in the Land Use and Growth element in Section 5 of this plan.

1.6. Purpose and History of the General Plan

The Town of Marana General Plan is a broad collection of goals, policies and actions that provide overall direction for future growth and development in the

community. The General Plan provides a framework that integrates land use, transportation, environmental concerns, economic development, housing, parks and recreation, and public facilities and services into a comprehensive and coordinated strategy. The General Plan also provides the basis for more detailed studies and implementation strategies with area plans, neighborhood plans, specific plans, master plans, regional plans and zoning regulations. While the General Plan does not dictate parcel-level land use decisions, it supplies many of the considerations and criteria to guide growth and development.

Marana's current General Plan was most recently updated in 2007. While the plan forecasts a period of 20 years or more, an annual General Plan review process was recommended to monitor effectiveness and determine any needed adjustments. It was also anticipated that minor updates to the plan would occur every 3 to 5 years. In addition, plan amendments were anticipated to accommodate changes in circumstances, new development technologies, or to take advantage of unique opportunities. Since its adoption, Planning Staff has been proactive in supplementing the plan with more detailed area and functional plans including the Strategic Plan, the Economic Roadmap, the Marana 2010 Parks, Recreation, Trails and Open Space Master Plan, the 2010 Marana Potable Water Master Plan, the Tres Rios del Norte Feasibility Study, and the draft Habitat Conservation Plan and other studies (See Appendix 10.3).

These supplemental plans are cross referenced in this plan. In many cases the General Plan elements provide a brief representation of the detailed policies and objectives of adopted area and functional plans. As extensions of General Plan authority, functional plans provide specific regulations for development.

1.7. The General Plan and Smart Growth

General plan requirements are based on Arizona's Growing Smarter legislation. Smart Growth principles provide strategies that protect natural resources, save energy, enhance quality of life, create housing choices, and improve municipal finances by taking into consideration location, design, and long-term costs of growth. These strategies will help move the town towards sustainability.

What is sustainability?

Sustainability boils down to this: "Don't eat your seed corn". A time-tested concept, sustainability highlights the need to build replenishing systems that can supply the present without compromising the future. Sustainability is about people: How to foster a robust workforce and

strong community. Sustainability addresses innovation: How to spark it, nurture it, and protect it so the idea pipelines don't run dry. Sustainability can be a lens to focus on values: Inspired by faith, family, and personal commitment. And of course, sustainability is also about natural resources: How to use, renew, and account for environmental capital. (Marketplace, America Public Media at http://americanpublicmedia.publicradio.org/sustainability)

1.8. The General Plan: Enabling Legislation

All municipalities in Arizona are required by state law to develop a general plan (ARS 9-461.05). The general plan is intended to provide broad, policy guidance for future development by outlining a community's needs and desires, tempered by available resources and geography.

The General Plan is divided into several interrelated categories, referred to as "elements." Municipalities with populations under 50,000 (like Marana) are mandated to address seven required plan "elements" in their general plan. Each element describes the strategies and policies a local jurisdiction will employ to manage growth and development, guide change, and leverage opportunities. Marana has opted to include seven "optional elements" in its 2010 General Plan, in addition to the seven required elements.

1.9. Marana General Plan Goals

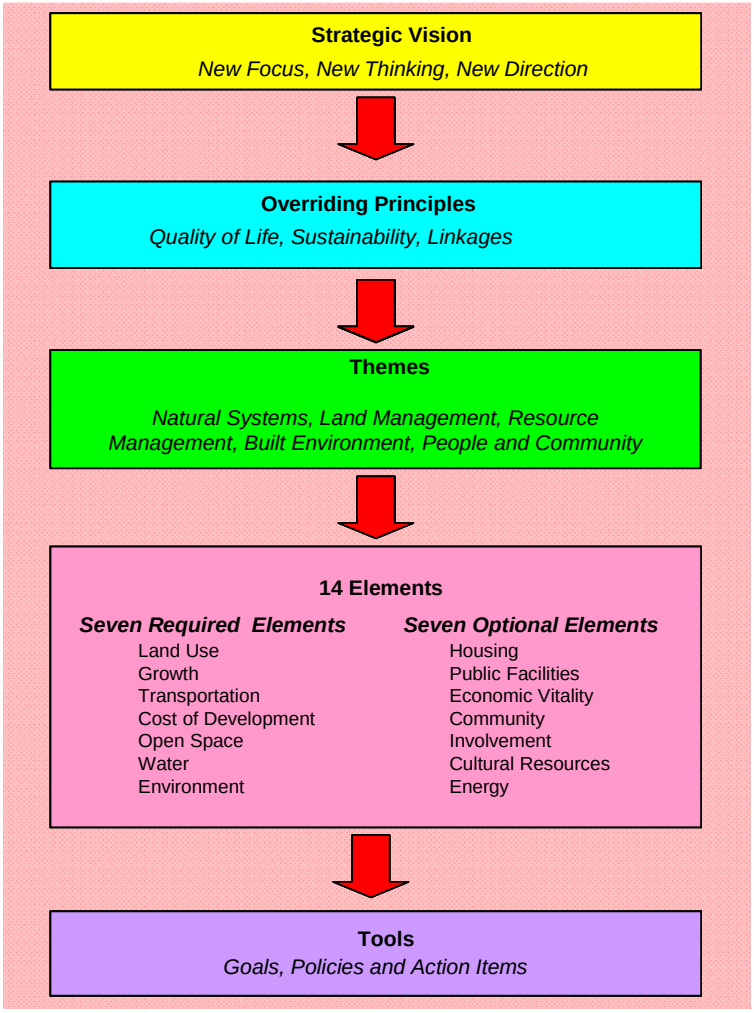
The overall goals of this general plan and the public involvement "update process" are to:

1. Reflect Marana's strategic vision for creating the town's planned future (New Focus, New Thinking, and New Direction).
2. Identify policies and strategies that contribute to the achievement of the plan's overriding principles: quality of life, sustainability and linkages.
3. Educate the community about the relationships and roles of the five major themes of the Marana 2010 General Plan: Land Management, the Built Environment, People and Community, Resource Management, and Natural Systems.
4. Identify best practices (policies and strategies) for each plan element to foster a community that is unique, dynamic and diverse.

1.10. Marana 2010 General Plan Framework

Marana's general plan is intended to be a living document that provides policy direction to guide future development. The plan is essentially a road map for achieving the community's future vision by establishing the overall context within which decisions are made about private development projects and public capital investments.

This general plan document is structured so that the reader begins with a snapshot of the future at the broadest level, focusing on the General Plan's *Strategic Vision*. The document drills down to the details of how that vision will be attained through the identification of *Overriding Principles* and five major *Themes.* The plan document concludes with specific policies, strategies and action items for each of the 14 elements associated to with one of the five major *Theme* areas. The graphic below summarizes this approach.



1.11. Marana General Plan Document Organization

The Marana 2010 General Plan document is organized into three segments:

- Part One – (Sections 1-4) essentially the preface to the General Plan, this section is an introduction to plan and includes general plan concepts, the framework, overriding principles, organization and administration of the plan.
- Part Two - (Sections 5 – 9) contains the fourteen elements, categorized by 5 themes.

  The 2010 General Plan is divided into five *Themes.* This type of organization is beneficial because it illustrates a new way of thinking, one that considers the inter-relatedness of natural systems, social systems, and human aspirations, issues that challenge Marana today. Themes include:

  1. Land Management
  2. Built Environment
  3. People and Community
  4. Resource Management
  5. Natural Systems

  General Plan elements are sorted into associated categories and contain 14 elements. This framework recognizes the inter-connectedness of our lives. Elements are intertwined with other elements. The theming concept is explained further in the Themes and Elements section.

- Land Use & Growth

- Transportation
- Housing
- Public Facilities
- Cost of Development

- Public Safety
- Parks & Recreation
- Economic Vitality
- Community Involvement

- Open Space & Trails
- Cultural Resources
- Water
- Energy

- Land, Air & Water

Information contained in each chapter include an Introduction, Background (if appropriate), Desired Outcome, Existing Condition, Current, Proposed or Newly Completed Projects, Opportunities and Challenges, Issue Identification and Trends, Strategic Direction, and Goals, Policies and Action Items.

- Part Three - (Section 10) contains the glossary and additional background information, including:

    1. Glossary
    2. Agency / Acronym Descriptions
    3. Marana Plans Descriptions
    4. Implementation Action Format
    5. Public Participation Plan
    6. Public Participation Resolution 2010-10
    7. Summary Specific Plan Table
    8. Marana Economic Activity Centers

Further Reading

Smart Growth/Smart Energy Toolkit, Second Edition – 2007, Produced by the MA Executive Office of Energy and Environmental Affairs

2.1. Strategic Vision and Overriding Principles

2.2. Core Community Values

The strategic vision for the future described in this general plan is rooted in the community's key core values, which play an integral role in the town's philosophy and objectives about future development. Identification of these core community values in the general plan, adoption of the plan by the Town Council, and ratification by Marana voters, represents a commitment to these values for guiding future land use and land use-related decisions in Marana.

"Committed to the future, inspired by our past," has been a motto used by the town since 1997 to describe the focus of the town's core values related to its future development. These values are:

- Creating Community
- Orderly Growth
- Economic Opportunity

Marana's 2010 General Plan recognizes that while core community values are less likely to change over time, the accompanying tools (policies, strategies and action items) within each plan element will evolve in response to events within, and outside of, Marana. Accordingly, the plan includes a mechanism for periodic review, evaluation, and when appropriate, revision of the plan's objectives, strategies and action items.

2.3. Strategic Vision: Overview

NEW FOCUS
NEW THINKING
NEW DIRECTION

The Marana 2010 General Plan *Strategic Vision* is derived from previous community mottos and community input, core values and existing town planning documents, most notably, the town's Strategic Plan. The Marana 2010 General Plan articulates this strategic vision from a fresh perspective, creating a new axiom that epitomizes Marana's approach to the future: **New Focus, New Thinking, New Direction.**

2.4 New Focus

A number of town plans have been developed or updated that will help Marana navigate into the future: the Marana Strategic Plan, the Economic Roadmap, the Parks, Recreation, Trails and Open Space Master Plan and the Draft Habitat Conservation Plan. Although the focus of each plan is different, collectively the plans represent a new perspective on the future with an understanding that for Marana to succeed, it must work to promote sustainability in society, the economy, and the environment.

The Marana Strategic Plan takes a broad look at the town's overall future direction, focusing on "big-picture" ideas. The Marana Economic Roadmap lays out the steps for building public/private partnerships to attract and retain a diverse business and employment base, and encourages the development of amenities and attractions that are the hallmark of a world-class resort destination. Bolstered by a clear focus on the need for educational and training opportunities for its residents, the Marana Roadmap envisions a future Marana with a self-sufficient, high quality workforce. The draft Marana Habitat Conservation Plan and the recently adopted Parks, Recreation, and Trails and Open Space Master Plan are an integral part of Marana's future vision. The "green" infrastructure that these plans identify and seek to sustain is important in achieving the delicate balance between environmental preservation, recreational needs, and development and growth.

➢ Marana Strategic Plan

In November, 2008, the Town Council initiated a visioning and strategic planning process that resulted in the Marana Strategic Plan, a proactive approach to address all facets of the community. Originally adopted in February, 2009 and annually updated, the town committed to building a sustainable community and high-performing organization. The plan identifies five focus areas where the town should direct its efforts and resources. Complementary to the town's General Plan, the Marana Strategic Plan includes goals and action items that address the town's appearance, strategic initiatives, and community culture, setting a bold vision for the future of the town with the following statement:

"*Marana is the centerpiece of the Sonoran Desert experience, where fun and progress meet."*

The Strategic Plan's overriding principals give direction for attaining our goals and achieving our vision through financial stability, collaboration with citizens, and developing strategic partnerships. The five focus areas are:

1. *Commerce* - Build upon the Town's unique combination of assets to attract and maintain career-oriented commerce.
2. *Community Building* - Create a safe community with a strong sense of place where diverse people are motivated to be involved and feel connected, needed, and appreciated.
3. *Progress and Innovation* - Foster an open atmosphere that embraces change, creativity, innovation and calculated risk.

4. *Recreation* - Showcase the unique Sonoran Desert environment by providing diverse recreational opportunities that create economic benefits and accommodate a healthy lifestyle.
5. *Heritage* - Maintain a sense of community character by honoring the past, present and future.

➢ Marana Economic Roadmap

The Marana Economic Roadmap is one of the initiatives identified in the Marana Strategic Plan "Commerce" Focus Area. The Strategic Plan's other four Focus Areas are directly related to the roadmap, and play an integral role in the success of its implementation.

The Roadmap contains an action plan that includes focus areas, goals, initiatives and action strategies. The Roadmap's focus areas are detailed in the Economic Vitality element (People and Community Theme, Chapter 7.3), and listed below.

- Business Attraction, Retention and Expansion
- Resource/Business Support
- Workforce Development
- Tourism and Visitor Experience
- Community and Infrastructure Development
- Target Industries and Activity Centers

➢ Draft Marana Habitat Conservation Plan (HCP)

The Draft Habitat Conservation Plan is a flexible program that integrates development activities with endangered species conservation, providing a framework for broad-based landscape-level planning. Section 10 of the Endangered Species Act authorizes states, local governments, and private landowners to apply for an Incidental Take Permit for otherwise lawful activities that may harm listed species or their habitats. To obtain a permit, an applicant must submit a Federal Habitat Conservation Plan (HCP) which is a legally binding document that outlines what actions will be taken to "minimize and mitigate" the impact of the permitted take on the threatened or endangered species. In return for mitigation measures described in the HCP, applicants have the assurance of what will be required by the U.S. Fish and Wildlife Service under the Endangered Species Act, under the "no surprises" clause of the Act.

The Draft Marana HCP provides measures to minimize and mitigate the effects of the proposed incidental take of federally listed species to the maximum extent practicable. This draft will provide for long-term regional planning and will help protect wildlife and habitat while improving the quality of life for Marana residents.

➢ Parks, Recreation, Trails and Open Space Master Plan

The Parks, Recreation, Trails and Open Space Master Plan (Parks Master Plan) provides direction and guidance for achieving the Strategic Plan's goal to "showcase the

unique Sonoran Desert environment by providing diverse recreational opportunities that create economic benefits and accommodate healthy lifestyles." The plan's development has included significant public input including outreach meetings, focus groups, surveys and benchmarking with other similar jurisdictions in the southwest United States.

Major topics addressed by this plan include new parks and facilities, trail connectivity, design standards, recreation programming, fee philosophy, special events, operations and maintenance and financing of future capital items. Understanding the function of parks and recreation facilities and programs as infrastructure critical to the town, positions the town to ensure that important components of the overriding principles of the General Plan (Quality of Life, Sustainability, Linkages). are achieved.

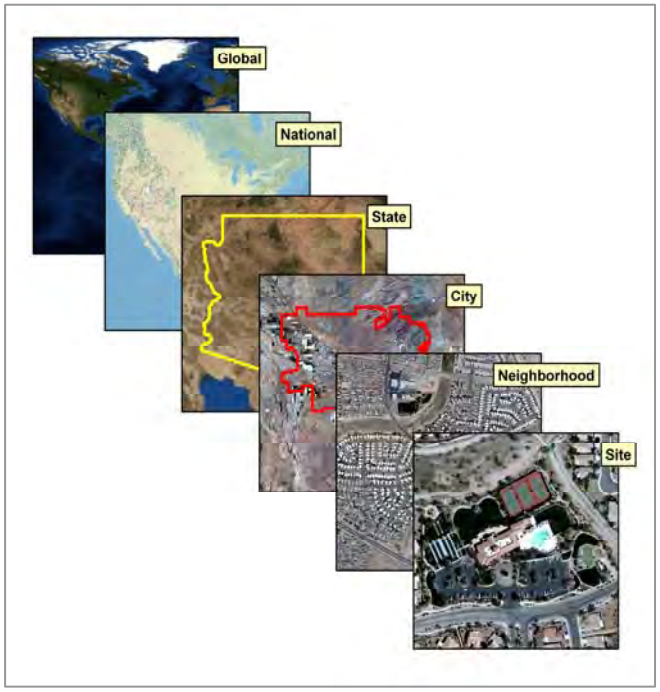
2.5. New Thinking

A community's general plan process is an important opportunity to rethink the focus of the general plan and the organization of the document. The comprehensive update process gives communities the opportunity to fully integrate key concepts that drive new thinking into the decision-making context for land use, transportation, environment, parks, open space and facility decisions. The following section identifies key concepts in "new thinking" that are imbedded into the 14 elements of this general plan. These key concepts are: linking environment and quality of life, focusing on the big picture, integrating the local economy in a metropolitan nation, incorporating research and learning, and growing smarter-Arizona's Smart Growth Legislation.

- <u>Linking Environment and Quality of Life</u>

From the quality of the air we breathe, the water we drink, and the food we eat, to the outdoors where we relax, recreate, and rejuvenate, we depend on nature to provide for us. A responsibility to understand and protect the environment and agriculture is a fundamental component of the Marana 2010 General Plan, recognizing the critical value of our limited resources. A responsibility to understand and protect the environment is a fundamental construct of the General Plan.

➢ Focusing on the Big Picture



A multi-scale view of Marana is necessary to take Marana into the future.

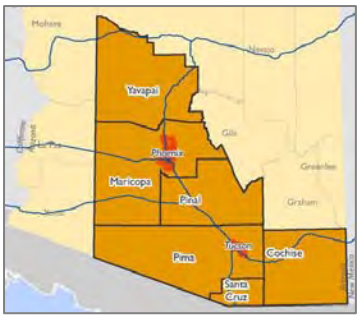
Moving forward in the new economy requires a readiness to embrace and adapt to a rapidly changing economic, social, political and natural environment. We live in a world quite different from even as recent as five or ten years ago.

Development patterns of the last 60 years, which allowed settlement to follow highways and sewer pipes, are not sustainable. To succeed in the long run, Marana must lead the process of generating ideas and finding better ways of doing things.

Organizations and communities that have been most successful in creating a vision that transcends the post-industrial age are those that have been skilled at understanding the larger systems they operate within. These entities collectively foster relationships and build creative teams and networks. They have a knack for connecting with what matters most to people in an organization and unleashing the latent collective imagination and energy residing within and among them.

Marana must also be recognized by the greater community as an integral part of a larger, more complex system, where results are achieved through multiple levels of government, and by partnerships between government and non-government organizations. Enhanced communication, mutual trust and respect, and ongoing and evolving partnerships are key to leveraging results in the greater community.

➢ Integrating the Local Economy in a Metropolitan Nation

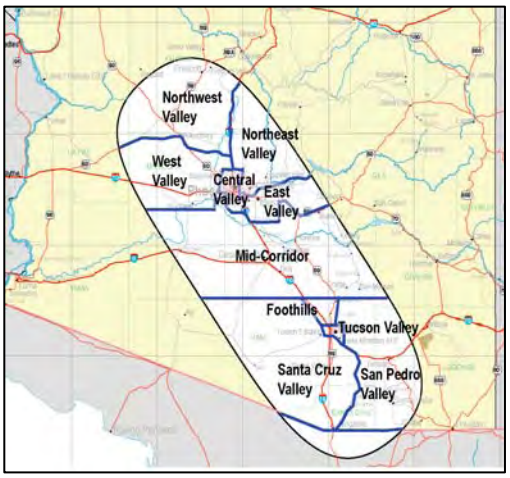


The Arizona Sun Corridor.

The Arizona Sun Corridor is one of 20 megapolitan areas in the United States and the largest megapolitan area in the Inter-Mountain West, with nearly 5.5 million residents in 2007. Populations are concentrated in Maricopa County, home to over 70 percent of the "mega's" residents. The Sun Corridor contains 87 percent of Arizona's population and generates over 90 percent of its gross state product. In short, what happens in the Sun Corridor determines what happens in Arizona.

Megapolitan is not a new term for Arizona. Demographers, economists, planners, and government officials have been using it to describe the corridor stretching from south of Tucson, north to Flagstaff for the past few years. These areas tie together cities, towns and counties within broader relationships, such as the movement of goods, business linkages, cultural commonality, and physical environments. Megapolitan regions are recognized as a growing force in globalization and drive the integration of local economies into the increasingly integrated world economy.

Analysis and study of this region by the Brookings Institute's Metropolitan Policy Program and Arizona State University's Morrison Institute for Public Policy suggest that Sun Corridor will create new patterns of development.



The Morrison Institute for Public Policy has done extensive research on the Sun Corridor and written a number of reports on the corridor. The Institute's 2008 report, Megapolitan: Arizona's Sun Corridor, identifies the Phoenix-Tucson stretch as the epicenter of the corridor and subdivides these two areas into ten connected realms. Each realm, while retaining its own identity, will contribute to the whole economy of the region.

"The Sun Corridor is not some academic theory to be realized in the far-off future. It's an active economic force shaping how we live today," (Tucson's New Prosperity: Capitalizing on the Sun Corridor, Sonoran Institute). The Sun Corridor represents an opportunity for Marana to build an economic niche for itself, develop connections across the region, and reap the benefits of regional economics.

➢ Incorporating New Research and Learning

Over the last ten years, there have been many studies examining elements of Arizona's economy and related public policy issues. While they have been conducted at different times by different groups of private organizations, public entities and civic leaders, many of the key findings cut across public policy lines to reach similar conclusions.

The Morrison Institute for Public Policy, School of Public Affairs at Arizona State University has been involved in public policy for a number of years. AZ Policy Choices (APC) is a signature series that provides objective, in-depth analysis of and recommendations on critical "big picture" public policy issues of vital importance to Arizona. Each issue is designed to stimulate debate, inform decision-making, and be a reference for the future. The series is known for creative and innovative thinking about leading-edge topics. The series is written by Morrison policy analysts, university scholars, Arizona policy leaders, and national experts. The General Plan draws on

several of these reports. "Five Shoes Waiting to Drop on Arizona's Future", written in 2001, is the Institute's fourth APC Report. The latest Public Policy Report was written in 2007 and is the Institutes most recent policy report, title "Sustainability for Arizona: The issue of our Age. These studies represent the most recent thinking on a range of issues from the environment and policy, to growth management and emerging technologies.

"Five Shoes Waiting to Drop on Arizona's Future" describes the fundamental issues that will either make or break Arizona. These include:

1. A Talent Shake Up - We think we're good at attracting brain power. But we're not as good as we think we are. And we may start losing it – in both the public and private sectors – if we don't work harder to land and keep tomorrow's footloose talent.
2. Latino Education Dilemma - Latino youth are upwardly mobile. But they need better education for Arizona to take full advantage of the possibilities this exploding population offers.
3. A Fuzzy Economic Identity - Arizona is growing high-tech jobs. But we have not met the challenge of ensuring that we can excel in the new economy over the long term.
4. Lost Stewardship - Leadership has become a spectator sport in Arizona.
5. The Revenue Sieve - Arizona's revenue system is old and full of leaks.

➢ Sustainability: The Issue of Our Age

Today, "Arizona" and "sustainability" represent a place and a concept poised together at the brink of humankind's most urgent need. This shift marks a dramatic point in the state's history. From the beginning of Euro-American settlement, Arizonans have focused their attention on state building in a forbidding place. Raising Arizona was the challenge of the 20th century. Sustaining Arizona is now the challenge of the 21st.

Many of the challenges of sustainability are those that policymakers have struggled with for decades. Environmental quality, family well-being, economic development, and smart growth have been covered in countless publications, including prior editions of Arizona Policy Choices. Sustainability, however, approaches the issues from a different perspective. Better described as a journey than a destination, sustainability draws on knowledge from many disciplines and accepts people as part of – and decision makers in – the environment. It looks for integrated solutions that serve the economy, environment, and society simultaneously. It acknowledges the part that values play in choices and everyone's responsibility for a quality future.

(Defining Sustainability. Sustainability: The Issue of Our Age", Eight/KAET, Arizona State University, Sustainability Channel, by the**Morrison Institute for Public Policy, accessed http://azpbs.org/sustainability/essaysdetail.php.**

2.6 New Direction

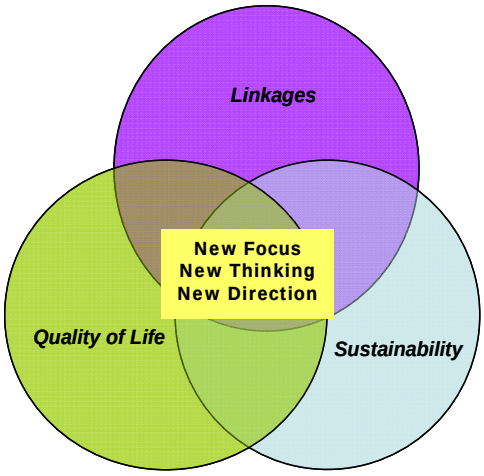
➢ Finding a Better Way to Grow

Marana's future will be best served by creating community and organizational capacity to quickly respond to challenges and nimbly navigate through change. To shape a sustainable future we will all need to work together differently than we have in the past. A sustainable community is one which values long-term cultural, economic and environmental health and actively seeks to link our social, financial, and environmental well-being.

2.7. Overriding Principles

The Marana 2010 General Plan starts with the big picture and identifies a *Strategic Vision* for the future: New Focus, New Thinking, New Direction. In order to accomplish this vision, three overriding principles serve as a foundation for the policies and strategies contained in the elements of this plan. The three overriding principles are *Quality of Life*, *Sustainability* and *Linkages*. The following sections describe how these concepts are used in the general plan and how they apply to managing future growth and development while preserving our key assets.

The overlapping circle graphic to the right is representative of the relationship between the strategic vision and the overriding principles. One circle stands for quality of life, another for sustainability, and another for linkages. Together they comprise the triple bottom line of Marana's approach to the future. Where all three circles intersect, is the place where progress on all three fronts can be achieved: New Focus, New Thinking, New Directions.



➢ Quality of Life

Determining the quality of life of an individual within a community requires a subjective evaluation of individual perceptions of culture, value systems, goals, expectations, standards and concerns. Quality of life is a broad-based concept affected in a complex way by the individual health, psychological state, personal beliefs, social relationships, and relationship to salient environmental features.

Marana's Quality of Life is represented by sustainable choices in:

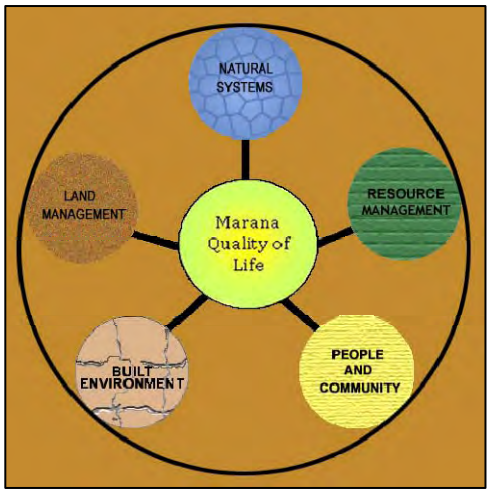
- Land use
- Commerce and employment
- Education
- Recreation
- Public safety
- Aesthetic appeal
- Transportation/efficient Mobility
- Health
- Housing varieties

Marana's Quality of Life is enhanced by:

- Clean air and water
- Climate
- Culture/Heritage
- Open space
- Wildlife and natural resources

The Wheel

Quality of life is an *Overriding Principle*, integral to the Strategic Vision of the Marana 2010 General Plan and its five themes and 14 elements. The Wheel reminds us that the inter-relationships between natural systems, social systems, and human aspirations must be addressed in our planning process to create policies and strategies that actually support a desired quality of life. The Marana Quality of Life Wheel illustrates the relationship between quality of life and the interconnectivity of the themes.



Marana Quality of Life Wheel

Making informed choices for how we manage, control, and direct the use of land and other resources will provide a means for achieving long-lasting indicators of individual and community well-being.

During the research and concept formulation phase of the Marana 2010 General Plan, five themes were identified as key ingredients for determining quality of life:

1. Land Management

2. Built Environment
3. People and Community
4. Resource Management
5. Natural Systems

➢ Sustainability

Sustainability is the second *Overriding Principle* of this general plan. It too is a fundamental principle that is integrated into the policies and strategies identified throughout this document. A sustainable community seeks to maintain and improve its economic, environmental and social characteristics so that community members can continue to lead healthy, productive and enjoyable lives. Part of Marana's new thinking is the recognition of:

- the critical interrelationships between economic, social and environmental health
- the way that we produce food and materials, trade and consume, impacts our ability to sustain natural resources
- social and cultural equity and diversity creates a human capital system that continually learns and contributes to economic well-being and environmental sustainability
- planned physical development has an impact on social conditions and should be considered in community planning
- the quality of environmental, economic and social health is built upon the full engagement and involvement of the community
- Marana must be a full service community with the ability to control our own destiny in order to maintain and enhance the livability and viability of the community

➢ Linkages

Linking seemingly disparate concepts into a cohesive whole is the final underlying principle of this general plan. Identifying and leveraging interrelationships is an integral part of achieving the Strategic Vision: New Focus, New Thinking, New Direction.

For this reason, the Town of Marana General Plan 2010 goes beyond an examination of Arizona's seven required plan elements and adds seven additional elements. Of critical importance is the addition of the "People and Community" Theme which brings together four "optional" elements that are not required by state law. The elements in this theme address public safety, parks and recreation, economic vitality and community involvement. The "Overriding Principles" of this plan cannot be achieved without the education and engagement of our community and these five themes.

Further Reading

Adams, W.M. (2006). *"The Three Pillars of Sustainability - Social, Environmental and Economic sustainability graphic".* Future of *Report of the IUCN Renowned Thinkers Meeting, 29–31 January. retrieved Web. 18 July 2010.*

Adams, W.M. (2006). "The Future of Sustainability: Re-thinking Environment and Development in the Twenty-first Century." Report of the IUCN Renowned Thinkers Meeting, 29–31 January. Retrieved July 17 2010. http://cmsdata.iucn.org/ downloads/iucn _future _of_ sustanability.pdf

Bishopp, Meck, Morris, and Kelly. (2006). Model Smart Land Development Regulations. Chicago: American Planning Association. Vol1.pg 231-236.

Brookings Institute (2010) "About Us - Metropolitan Policy Program." Brookings - Quality. Independence. Impact. 17 July 2010. Retrieved from http://www.brookings.edu/metro/About-Us.aspx.

Morrison Institute. (2008), *"Megapolitan: Arizona's Sun Corridor."* Vol.16. May. Retrieve 17 July 2010. http://morrisoninstitute.asu.edu/morrison-update/megapolitan-arizonas-sun-corridor.

Morrison Institute for Public Policy. School of Public Affairs. Arizona State University. (2001) "APC 2001: Five Shoes Waiting to Drop on Arizona's Future". July 2010. http://morrisoninstitute.asu.edu/publications-reports/az-policy-choices.

Morrison Institute for Public Policy. School of Public Affairs. Arizona State University (2007) "APC 2007: Sustainability for Arizona: The Issue of Our Age". October 2010. http://morrisoninstitute.asu.edu/publications-reports/az-policy-choices.

Reagor, Catherine. (2008). *"Sun Corridor May Be "New Heartland"* Arizona Local News - Phoenix Arizona News - Arizona Republic, ed. 20 July 2008 . Retrieved 17 July 2010. http://www.azcentral.com/arizonarepublic/business/articles/2008/07/20/20080720biz-catherine0720.html.

Senge, Peter. (2008) " *The Necessary Revolution: How Individuals and Organizations Are Working Together to Create a Sustainable World".* New York: Doubleday, 2008. Print.

Sonoran Institute. (2010). *"Tucson's New Prosperity: Capitalizing on the Sun Corridor."* Retrieved 17 July 2010. http://www.sonoran.org.

United Nations, (2010). "*Report of the World Commission on Environment and Development: Our Common Future.*" Gathering a Body of Global Agreements - Universal Declaration of Human Rights - UN Documents Cooperation Circles. A/RES/3/217 A. Retrieved 17 July 2010. http://www.un-documents.net/wced-ocf.htm.

U.S. Fish and Wildlife Service. (1996). "*Habitat Conservation Planning and Incidental Take Permit Processing*". U.S. Department of Commerce, National Oceanic and Atmospheric Administration; National Marine Fisheries Service. Retrieved 20 July 2010. http://www.fws.gov/.

3.1.1 General Plan Themes and Elements

3.1.2. Element Format & Organization: Themes and Elements

The 2010 General Plan is divided into five *Themes* that summarize the interrelationships of the 14 elements. Seven of these elements are required under Arizona state law and are denoted in red.

Theme	Content	Elements
	The "how" and "what" of land use.	Land Use, Growth
	What we put on the land and how it will get there.	Transportation, Housing, Public Facilities, Cost of Development
	The ingredients that make a good quality of life for people and community.	Public Safety, Parks and Recreation, Economic Vitality, Community Involvement
	Managing and creating resources.	Open Space & Trails, Cultural Resources, Water, Energy
	Protecting natural processes and the biological systems within them.	Land, Air, and Water (Environmental)

3.1.3 Each element (or chapter) contains the following sections:

1. Introduction
2. Background (if appropriate)
3. Desired Outcome
4. Existing Conditions
5. Current, Proposed or Newly Completed Projects
6. Opportunities and Challenges
7. Issue Identification and Trends
8. Strategic Direction
9. Goals, Policies and Action Items

3.1.4. Land Management Theme

The Land Management Theme includes topics related to how Marana plans to use the land (Land Use), and where Marana expects future growth to occur. Land Use and Growth Elements are required to be in every Arizona general plan and are traditionally separated as stand alone elements. The Marana 2010 General Plan combines land use and growth into the Land Management Theme. The strategies, policies, and action items in this theme are intended to move the town to a focused and purposeful management of land use decisions, with clear and systematic decision making tools.

Together, the land use recommendations and guidelines promote efficient growth and revitalization that will enhance the quality of life for both existing and future residents of Marana. The discussion of land use and growth and how it relates to the Overriding Principles of Quality of Life, Sustainability and Linkages is imperative if we are to make wise land use decisions and investments in public infrastructure.

3.1.5. Built Environment Theme

The Built Environment Group Theme addresses man-made structures built on the land. The term "built environment" is used to describe all structures, facilities and other physical infrastructure. The Built Environment includes urban and rural development, telecommunications, utility networks, transportation systems, sewer treatment and conveyance systems, water treatment and conveyance systems, dams, and flood control structures. The term "environment" implies that the built environment is more than just the physical resources on land. The built environment represents the relationships between people, communities, and physical resources. Elements included in the Built Environment Theme include: Transportation, Housing, Public Facilities and Cost of Development, with Transportation being the one required element.

3.1.6. People and Community Theme

Marana values its citizens, businesses and visitors and strives to create a high quality of life. The elements within this theme ensure that citizen, business and visitor needs are being addressed equally, regardless of physical health status, social and economic conditions. Elements within this theme are fundamental in meeting the *Overriding Principle* - Quality of Life and include: public safety, parks and recreation, economic vitality and community involvement. All of the elements contained in this theme are optional elements included by Marana in its general plan to provide readers a holistic view of the community's future vision.

3.1.7. Resource Management Theme

The Resource Management Theme provides guidance in managing Marana's renewable and non-renewable resources. Elements in the Resource Management Theme include: Open Space and Trails, Cultural Resources, Water Resources and Energy. The 2010 General Plan considers open space, trails and cultural resources finite and non-renewable. Water is a finite resource and energy is regarded as a renewable resource (renewable because we are capable of replacing by natural ecological cycles or sound management practices). The Open Space and Trails Element and the Water Element are required elements of a general plan.

3.1.8. Natural Systems Theme

The Natural Systems Theme refers to the natural resources within the environment that tie us to the earth, and which we rely upon to exist – land, air, water and biological systems. While this list is not intended to identify all of the natural systems within a community, it identifies those that are fundamentally related to the environment of every community, affecting what services are provided and how those services are structured. Marana recognizes that the continued protection, and conservation of these natural resources is necessary to maintain our quality of life and the sustainability of the environment and our community. This theme establishes policies to achieve acceptable standards of management and practice under the guidance of the Marana Draft Habitat Conservation Plan (HCP). The items contained within the Natural Systems Theme are required to be a part of a municipality's general plan.

4.0 Plan Administration

4.1.1 Project Background and Process

The Marana 2010 General Plan is comprehensive, providing coordination for all of the interrelated functions of the Town of Marana and affecting all areas of the Town and the Marana Planning Area (MPA).

The Marana 2010 General Plan: New Focus, New Thinking, New Direction is intended as a guide. It summarizes the purpose of the Plan, and reflects the Town's vision for the future. All fourteen elements are interrelated and are intended to be considered collectively in public and private decision-making. Users are strongly urged not to rely on select, excerpted statements; but, rather, are encouraged to consider all the subject matter of the Marana 2010 General Plan as a whole. The related reference documents are in the General Plan Appendices which include the glossary, agency/acronym descriptions, Marana's Adopted Plan Descriptions, the adopted 2010 General Plan Public Participation Plan and resolution, the Specific Plan Summary Table and the Marana Economic Activity Centers.

➢ What is the Marana General Plan?

A General Plan is a statement of a community's vision for growth and development. It provides guidance and direction on long-range development decisions through a series of goals, policies, actions and related maps. A General Plan primarily addresses the physical aspects of growth in terms of land use, transportation, open space, public facility locations, infrastructure development and similar issues. New requirements for General Plans in Arizona require that economic impacts of various approaches to development be considered (but not regarded as a plan for economic development or as a program to provide for services).

The General Plan is:

- An expression of citizen preferences
- A statement of Town policy
- A guide to public and private decision making
- A long-term perspective
- More than a land use map
- A blueprint to improve residents' quality of life
- A legal requirement under Arizona State Law

The General Plan is NOT:

- A zoning map
- A tool to promote special interests
- An unchangeable document
- A detailed policy for specific properties or areas
- A capital improvement program

City of Glendale

➢ Why do we need to update the General Plan?

By law, municipal General Plans should be developed, updated, or readopted at least every ten years. A.R.S. § 9-461.05 contains the requirements for municipal General Plans, and states that each planning agency shall prepare, and legislative body of each municipality shall adopt a comprehensive, long-range General Plan for the development of the municipality. The General Plan shall include provisions that identify changes or modifications to the Plan that constitute amendments and major

amendments. The Plan shall be adopted and readopted in the manner prescribed by A.R.S. § 9-461.06.

The 2007 Marana General Plan was the most recent update, adopted December 19, 2007. The 2007 Plan was not a comprehensive update, therefore it was not ratified. The last comprehensive General Plan update was ratified in 2003.

In addition to state law requiring that a Town's General Plan be updated, it is important that the plan reflect the community's values and priorities for future development. Unparalleled national financial constraints (federal deficit, tight credit, and low consumer confidence) have challenged the community's economy, citizen's values and priorities. The Marana 2010 General Plan update responds to these new conditions with a New Focus, New Thinking, New Direction approach while being in compliance with the Growing Smarter legislation.

➢ What is the Function of a General Plan?

The General Plan contains a community's goals and policies on development, its aspirations for the future, strategies for implementation to achieve future goals, and a proposed map of the jurisdiction that typically includes land use, transportation, and public facilities and services.

Growing Smarter/Plus legislation requires the inclusion of elements to address areas such as Open space, environmental planning, growth areas, cost of development, and water resources. Communities may opt to include additional elements to address issues of local significance, such as an economic development element.

- <u>The Plan as a Statement of Policy</u>

  As a statement of policy, the Plan serves as a guide to elected bodies responsible for adopting land use controls and to the courts that must judge their fairness and reasonableness. Throughout the planning process, conflicts among the goals of competing interest groups must be resolved to adequately represent the community as a whole; yet goals and objectives must be measurable and specific enough to be implementable. This requires an effective public participation program to gain community support for the final plan goals, objectives, and policies. Policies outlined in the Plan can provide stability and consistency through political and administrative changes.

- <u>The Plan as Part of a Process</u>

  Planning is a continual process. No plan can be the "last word" on a community's future development. A single planning document cannot provide solutions to all the economic and social problems facing a changing community. Conditions, resources, and goals could change, making it necessary to amend the Plan. An important purpose of developing a plan is to work through the process – to create a basis for

continuing activity designed to produce the best possible decisions about the community's future. Planning processes should be participatory, and provide the opportunity to bring the public and other stakeholders into a common forum to talk about a community's vision and goals. An effective process will ensure that the Plan is an accurate and complete summary of the community's vision at a particular time, and the stakeholders will be familiar with and supportive of its goals due to their participation.

- Policy as Strategy

  The Plan contains policies on land use, transportation, public services, housing, environmental or resource conservation, and whatever else is important in the community. These policies should support the community's overall development goals and their priority. In growing cities, policy may be directed to maintaining, stimulating, or managing new development, or to controlling the location and type of development occurring. In cities with stable or declining populations, policy may focus on infill development, effective use of public resources, and maintenance of existing facilities and services. Large cities and counties with substantial regional differences may prepare their plan incrementally. Another benefit to planning is to coordinate policy and priorities among the various elements (such as land use, circulation, etc.) so that decisions made by different government entities are mutually supportive and not conflicting.

- The Plan as a Guide to Decision-Making

  Clear, concise policies provide the means for implementing the General Plan. The capital improvements program (CIP) and municipal budget provide the schedule and resources for the jurisdiction's part in accomplishing these goals. The most common way in which the land use element of the Plan is used for decision-making is through the zoning process. The zoning map and proposed land use map are graphic depictions of land use policy. Subdivision regulations, like the zoning ordinance, should be designed and administered in accordance with the development policies outlined in the Plan.

4.2.1 Administration of the Plan

The Town of Marana intends this Plan be followed and consistently applied unless conditions in the community have changed to the extent that the Plan requires amendment or modification. When conditions warrant that the Plan be modified, such amendments are subject to the process and approval set forth in the Plan according to Arizona law and the Town of Marana amendment process. Responsibility for administration of the Plan is shared by the Town Staff, Planning Commission, Town Council, and Town citizens. This section describes the process and procedures that are to be utilized when amending the General Plan.

➢ Amending the Plan

The Town recognizes that to be a dynamic guide for future growth and development, the General Plan will need to be amended or updated periodically. Such amendments may involve a change to the Land Use Map for specific properties or a change to the text within existing elements of the Plan. These amendments may be initiated by the Town Council, Planning Commission, and Town Staff or by private applicants.

The General Plan is amended by the adoption or re-adoption of one or more elements of the General Plan pursuant to Arizona Revised Statutes (ARS) §9-461.06. This adoption or re-adoption of the General Plan must be approved by an affirmative vote of at least two-thirds of the members of the Town Council and ratified by the voters when required by State Statutes.

Amendments to the General Plan should never be allowed to occur in a haphazard manner. Amendments to the General Plan should only occur after careful review of the request, finding of fact, and public hearing(s) by the Planning Commission and Town Council. The statutory requirements for the adoption of the General Plan shall be followed for all amendments as they pertain to public hearings and otherwise.

Major Amendment

A major amendment to the General Plan is defined as any change that would represent a "substantial alteration" in the land use mixture or balance as established in the existing General Plan Land Use and Growth element. Major amendments are considered on an annual basis by the Mayor and Council and require a two thirds-majority approval. State law prohibits major amendments to the Town's General Plan from being enacted as emergency measures. Major amendments may be subject to public referendum. The following criteria will be used to determine if a proposed amendment is a "substantial alteration":

1. Change in any land use designation exceeding 80 acres (not including Master Planning Areas).

2. Two-step increase change of the current land use designation.

3. Proposal that results in a significant alteration, or diversion from an area of the adopted Road Network including, but not limited to, a change in functional classification.

Public Notification

Major amendments will include a public involvement program consistent with state statutes, as outlined in Public Participation Plan (PPP).

Minor Amendment

If the proposed change is considered a minor amendment, it can be processed concurrently with a rezoning request and approved at public hearing by a simple majority of the Town Council. A minor amendment is any proposal that does not meet the criteria for a major amendment as defined above.

Adoption of Amendment

Making responsible choices for how we manage, control, and direct the use of land will provide a means for achieving long-lasting measures of individual and community well-being. The disposition of the General Plan amendment proposed shall be based on consistency with the vision, goals, and policies of the General Plan with emphasis on:

1. The three overriding principles of the Marana 2010 General Plan: Quality of Life, Sustainability and Linkages. The proposed change will:

    a. Improve Marana's Quality of Life by providing sustainable choices in regards to land use, commerce and employment, education, recreation, public safety, aesthetic appeal, transportation/efficient mobility, health, and housing variety, and/or:

    b. Enhances Marana's Quality of Life by ensuring Marana's citizens have clean air and water, climate, culture/heritage, open space, public transportation, wildlife and natural resources.

2. The proposed change reflects market demand which leads to viability and general community acceptance; and,

3. The amendment will not adversely impact the community as a whole, or a portion of the community without an acceptable means of mitigating these impacts through the subsequent zoning and development processes.

The applicant for the amendment shall have the burden of presenting facts and other materials to support these findings.

4.3.1. Project Conformance with the General Plan

Arizona State Law requires that zoning be in conformance with the General Plan. ARS Section §9-462.01F states that a rezoning ordinance conforms with the land use element of the general plan if it proposes land uses, densities or intensities within the range of identified uses, densities and intensities of the land use element of the general plan. All rezoning proposals and development projects shall be evaluated for conformance with the Plan. A rezoning will further the implementation of, and not be contrary to, the goals, policies, and applicable elements of the Plan. Proposals for

zoning change should be evaluated in relation to all of the policies in the General Plan, not just the map and those in the Land Use Element. When a proposed zoning change is not in compliance, the applicant will be required to amend the General Plan, or the proposal.

4.3.2 Implementing the General Plan

- Strategic Implementation Program

Arizona Revised Statutes (Section 9-461.07-A.2) require that, once the Plan is adopted and ratified, the Town will, through its planning agency, annually prepare and provide a report to the Town Council on the status of the Plan and progress in its application. In addition to this annual report, the Town will develop a Strategic Implementation Program (SIP) to implement the Plan which, as described below, would include a periodic review of the Plan.

The Strategic Implementation Program is comprised of a set of actions which implement the goals and policies of the Marana 2010 General Plan. Action item identify each element's goal number and policy number the action implement, and the primary Town department or division responsible for its achievement. The Implementation program is divided by action plan timing: short-term, medium-term, long-range and on-going.

Goals and Policies Formulation

Perhaps the most important, and yet most difficult, stage of the strategic planning process is the establishment of goals, and policies for future development. The need for revision of existing goals and policies, or identification of new ones will emerge during the data evaluation and public input. An important point to remember is that policies must be measurable so that progress towards meeting community goals can be monitored.

Element Goals and Policies

The Marana 2010 General Plan elements are the town's official statements of land use and development policy. The current Marana General Plan was adopted on December 19, 2007 and has ten plan elements - Land Use, Circulation, Growth Areas, Public Facilities and Services, Cost of Development, Environment, Recreation and Open Space, Water Resources, Economic Development, and Housing. The Marana 2010 General Plan has 14 elements, many of which are optional.

Goals, policies and actions are located at the end of each General Plan element. Approaches to implement the goals and policies will be outlined in the Marana Strategic Implementation Plan, developed after this plan is ratified by voters.

Definitions of Goals, Policies and Actions

Goals are the ideals to strive for, or the desired state of things. Policies establish a recognized community position on a particular issue; General Plan policies are set forth both as written text and as policy maps, such as the Land Use Plan. These complimentary; written policies set forth the basic approach to be taken while the policy maps show the intended spatial application of the policies. Actions identify what will be accomplished, by whom and when. Action items will be detailed in the Strategic Implementation Plan table. Appendix 10.8 shows the table format that will be used when the SIP is developed.

Action Plan Timeframe

Action plan timing is proposed in terms of years, but the timing of actions should be adjusted regularly to fit actual population thresholds and service demands, since these are more realistic benchmarks than simple chronology. The annual review process and amendment procedures are consistent with both the Town's Vision and State of Arizona Growing Smarter legislation.

2010 General Plan Time Frames		
Time Frame	***Years to Implement***	***Description***
On-going	→	**On-going items are not one-time programs but rather action items that should be done at regular intervals**
Short-term	**0 to 3**	**Actions that take place over the next one to three years.**
Medium-term	**3 to 9**	**Actions that fall into this category need to take place over the next three to nine years.**
Long term	**9 to 15**	**We will have long term goals and they will appear in the implementation plan text, but they won't occur in any table/matrices.**

Examples of Action Plan Timing

Ongoing Actions

Ongoing actions include essential municipal management functions, particularly those associated with CIP development and review.

Ongoing actions include quarterly administrative requirements and on-going planning for the Capital Improvement Program (CIP).

Short-term Actions (0 to 3 years)

Short-term actions are specific programs or activities within a two-year horizon. Short-term actions focus on specific plans, programs, or activities of a non-recurring nature. These actions may include the development or updating of particular area or functional plans, such as the Town Center Design Manual, or revisions to the Land Development Code.

Short-term actions include Land Development Code revisions and other immediate, non-recurring actions.

Mid-term Actions (3 to 9) years

Mid-term actions include infrastructure and public utility required to meet the Town's growing population and land base. Mid-term actions assume continuing population growth and highlight key infrastructure improvements.

Mid-term actions recommended for General Plan implementation assume that on-going and short-term actions have been successful. The Town's population will continue to grow during the mid-term period, and more ambitious infrastructure plans and improvements will be critical during this period in order to meet General Plan goals and policies, particularly in transportation, public services, open space acquisition, and environmental protection. Examples include municipal utility extensions, full-service circulation and open land reservations and sensitive lands protection.

Long-range Actions (9-15 years)

Long-range actions will be based on the success of on-going actions, short-term actions, and mid-term initiatives. These actions will enhance municipal enterprise and community image.

By the year 2010 and beyond, Marana will be more self-sustaining and will undertake more extensive enterprise ownership, ranging from recreational facilities to transportation systems. Long-range actions emphasize community self-sufficiency and are designed with Marana's future in mind as a medium-sized municipality. Long-term actions emphasize public and private improvements and services that promote function, efficiency, and economic viability that enhance community image and identity.

SECTION 5

Introduction to the Land Management Theme

The Land Management Theme includes topics related to how Marana plans to use the land (Land Use), and where Marana expects future growth to occur. Land Use and Growth Elements are required to be in every Arizona General Plan and are traditionally separated as stand alone Elements. The Marana 2010 General Plan combines land use and growth into the Land Management Theme. The strategies, policies, and action items in this Theme are intended to move the Town to a focused and purposeful management of land use decisions, with clear and systematic decision making tools.

Together, the Land Use recommendations and guidelines promote efficient growth and revitalization that will enhance the Quality of Life for both existing and future residents of Marana. The discussion of Land Use and Growth and how it relates to the Overriding Principles of Quality of Life, Sustainability and Linkages is imperative if we are to make wise land use decisions and investments in public infrastructure.

Theme	Content	Elements
	The "how" and "what" of land use.	Land Use, Growth

5.1.1. Introduction

The objectives of the Marana 2010 General Plan are to integrate community values, orderly growth and economic opportunities into Marana's future. The Land Management theme includes topics that relate to how Marana intends to use the land and where Marana plans future growth. The Land Use and Growth Elements that were stand-alone elements in previous general plans have been combined to provide a more comprehensive perspective of our community. The goals, policies, and actions in this element guide future development to appropriate areas where the Town has the ability to build the necessary infrastructure with land uses that will benefit the community.

The Land Management section uses a number of different strategies to establish land use patterns that respond to particular opportunities, attributes and constraints within each area. In order to create a successful land use plan for the Town many factors have to be assessed, such as the availability of infrastructure, watershed/drainage, preservation of natural and cultural resources, and compatibility to existing development.

This Land Management section recognizes existing plans and policy documents to address land use issues and decisions. These plans continue to guide policy, regulations and detailed actions for implementation.

5.1.2. Background

The majority of Marana's agricultural fields have always been devoted to cotton, which farmers called "desert snow."

Since the rural farming community of 1,512 people was incorporated in 1977, the population in Marana has increased significantly (Regional Population Growth Figure 5.1). Between 1980 and 1990, Marana's population grew to 2,187, an increase of 513 residents or 31%. From 1990 to 2000, population grew to 13,556 residents and nearly 5,000 households, a 520% increase. From 2000 to 2010, the population increased to an estimated 35,559 residents, a 162% increase. Marana has outpaced Oro Valley, Tucson and Pima County in its population growth rate.

Marana's population growth since incorporation is the result of annexations and the development of master planned communities. The Town went from 10 square miles in 1977 to over 121 square miles in 2010. The Annexations Map is shown on Page 5.1.A. The result has brought changing demographics with demands for new and different land uses, such as active retirement housing and more diversified commercial uses along with public facilities and services to serve the growing population.

Figure 5.1 – Regional Population Growth (1977 – 2010)

	1977	1980	1990	2000	2010
Marana Incorporated Area (square miles)	10	29	59	74	121
Marana Population	1,512	1,674	2,187	13,556	35,559
Population per square mile	151	58	37	183	291
Percent change in population (from previous year)	---	11%	31%	520%	162%
Tucson Incorporated Area (square miles)	94	99	158	195	230
Tucson Population	304,600	330,537	405,390	486,699	545,100
Population per square mile	3,241	3,344	2,573	2,491	2,390
Percent change in population (from previous year)	---	9%	23%	20%	12%
Pima County Area (square miles)	9,189	9,189	9,189	9,189	9,189
Pima County Population	468,500	531,445	666,880	843,756	1,021,850
Population per square mile	51	58	73	92	111
Percent change in population (from previous year)	---	13%	25%	27%	21%

Land Use Planning Tools

The Town of Marana has historically used the specific plan process to create master planned communities that provide a mix of uses that many times is not achievable by using the Town's conventional zoning codes. A specific plan is a tool for the systematic implementation of the General plan. It effectively establishes a link between implementing policies of the General Plan and the individual development proposals in a defined area. These specific plans are guided by regulations and standards for items such as land use, density, site planning, infrastructure, circulation, landscaping, and architectural design.

The Land Development Code (LDC) is the regulating document for any land that is not a part of a Specific Plan. The LDC regulates land use with respect to zoning, subdivision regulations, signage, parking, landscaping, and other critical standards that promote public health, safety, and welfare. The LDC can also be used in conjunction with Specific Plans when they refer to particular sections of the LDC for compliance or in the event a Specific Plan does not cover a particular issue. The Town is currently in the process of a rewrite of Town's Land Development Code. Staff will begin with a reformatting of the Code which will provide for a clean transition when the LDC is added as a section of the Town Code.

The Town's Five year Capital Improvement Program (CIP) is revised annually with the Town's budget cycle. Annual review of the CIP supports effective implementation of General Plan goals and programs.

5.1.3. Existing Conditions

Planning Area

Marana's planning area encompasses approximately 228 square miles in Pima and Pinal Counties as shown in the Planning Area Map on page 5.1.B. Existing land uses include natural undisturbed desert, improved drainage areas, agriculture, recreational lands, residential, commercial, and industrial development. The Existing Land Use Map is provided on page 5.1.C, percentages of land use by type can be found in Existing Land Use Figure 5.2. A majority of the Planning Area beyond the Town boundaries is undeveloped.

Marana's Town limits reflect the many changes and transitions that have occurred since its incorporation in 1977. Marana's rural heritage is reflected in traditional family farms and agricultural activities that continue on many acres of land historically used for agriculture. Older, low density residential and commercial development was located west of Interstate-10 (I-10), in and near the traditional Town area where many Marana pioneer families settled. This northwest part of Marana began a transition to a more densely populated area in early 2000. At that time the Cactus Ferruginous Pygmy-owl was listed as an endangered species, which limited development in much of the area east of I-10. This shifted the development focus to the farm fields in northwest Marana. The extension of bank protection along the Santa Cruz River to Sanders Road took many of the farm fields out of the floodplain and opened them up to development opportunities. The extension of close to six miles of sewer lines in 2003, brought urban services to the northwest area. By 2010 there were over 4,000 new lots platted in this developing part of the Town and close to half of those lots had constructed homes. The new growth brought approximately 5,000 new residents to this once rural area. The northwest area is the number one growth area for Marana, with over 17,000 more lots entitled in this area.

Marana's planning area includes natural areas, such as the Tortolita Mountain Alluvial Fan in the northeast, which provides physical constraints that limit development. Characterized by steep slopes, natural drainageways, native vegetation and floodplains, this area provides natural undisturbed open space and habitat for a multitude of plant and animal species. The Town has proactively moved to direct new growth and development away from the fan to other more appropriate areas. This General Plan is establishing no extension of urban services into this sensitive area as shown on the Land Use Map on page 5.1.D.

Land Ownership

Land ownership in Marana is shown on the Land Ownership Map on page 5.1.F. The Arizona State Land Department is a major landowner of the undeveloped lands in Marana, with ownership of approximately 43% of land within the current Town boundaries. A breakdown of the land ownership within the planning boundary is shown on page 5.1.F. The State Land Department, formed in 1915, was established to manage the Land Trust, conduct sales of property and maximize revenues to support Arizona schools and other identified benefactors. All uses of the land must benefit the Trust, a fact that distinguishes it from the way public land, such as parks or national forests, may be used. While public use of Trust land is not prohibited, it is regulated to ensure protection of the land and reimbursement to the beneficiaries for its use. Future development in Marana will be significantly affected by future disposition of those land areas.

The Pima County Flood Control District is the primary landowner along the southern reach of the Santa Cruz River and Canada del Oro Wash. There are intergovernmental agreements between the Town of Marana and the Flood Control District for drainage maintenance in these areas.

Specific Plans

In the late 80's Marana annexed areas which became home to significant Specific Plans that played large roles in the growth of the Town. The Dove Mountain and Continental Ranch/Reserve areas currently account for 70% of all homes built within the Town. The trend for using the specific plan zoning to develop land has continued since the first Specific Plans were adopted. The Town currently has 27 specific plans of which 20 have been adopted in the last 10 years. A summary of the adopted Specific Plans in Marana is included in the Appendix.

Existing Development

Existing development along the Interstate 10 corridor is characterized by major commercial and industrial uses with neighborhood commercial centers developed at major road intersections. These uses include hospitality, business and industrial parks, and recreational facilities in the southern area of the corridor.

The last ten years has added over 125 new residential subdivision plats to Marana. These developments have attracted new residents of all types. Families have found areas like Gladden Farms in northwest Marana and Continental Ranch – Continental Reserve in southern Marana rich in amenities that they desire for raising their families. Very successful retirement communities, such as Sunflower in Continental Ranch and Heritage Highlands in Dove Mountain, identify Marana as ideal for active adult living. There have also been a number of large planned communities entitled

for future development, including The Villages at Tortolita, Mandarina, Cascada, Saguaro Springs, Gladden Farms II, Shoppes at Tangerine, Uptown at Marana and Sanders Grove. Industrial and commercial uses have largely followed the Interstate 10 corridor with neighborhood commercial centers developed at major road intersections.

Marana currently has over 18,000 platted residential subdivision lots, with almost 13,000 of those having homes constructed on them. Through the adoption of numerous Specific Plans and rezonings, there are close to an additional 31,000 lots that are entitled but not platted, bring the Town's total count of platted and entitled lots to approximately 50,000. Existing land uses can be found on the Existing Land Use Map on page 5.1.C. and delineated in Figure 5.2 below.

Marana has a distinct advantage over other jurisdictions by having the potential to extract the sand and gravel resources so closely to the future development. Having these resources so close to development means less travel miles for transporting the material. This translates to lower material costs, reduced wear and tear on the roads and a reduction in fuel consumption and vehicle emissions within the Town and the region. Several mining operations are currently extracting materials needed for construction and manufacturing. Some of these gravel deposits are nearing depletion and efforts are being made to assure proper reclamation of the land and potential reuse of the sites.

Figure 5.2 – Existing Land Use

Existing Land Use				
Source: Town of Marana	Town of Marana Acres	Town of Marana % of Total	Planning Area Acres	Planning Area % of Total
Airport	662	0.85%	3,669	2.52%
Commercial	946	1.22%	1,147	0.79%
Industrial	1,473	1.89%	3,588	2.46%
Parks and Recreation	4,220	5.43%	6,716	4.61%
Open Space	1,667	2.14%	1,669	1.15%
Public/Institutional	1,029	1.32%	1,473	1.01%
Residential Detached Single Family	6,244	8.03%	10,568	7.26%
Residential Multi-Family	53	0.07%	53	0.04%
TOTAL DEVELOPED	16,294	20.96%	28,883	19.84%
Agricultural	12,745	16.39%	22,767	15.64%
Rivers, Major Washes and Drainage Channels	1,832	2.36%	2,472	1.70%
Vacant/Undeveloped	45,512	58.54%	89,690	61.61%
I-10 Corridor	1,357	1.75%	1,759	1.21%
TOTAL UNDEVELOPED	61,446	79.04%	116,688	80.16%
GRAND TOTAL	77,740	100.0%	145,571	100.0%

5.1.4. Desired Outcomes

Future land use planning includes areas for open space, recreation, a variety of residential densities, and a mix of employment centers including commercial, business, research, manufacturing, and industrial parks. In addition, the Marana Regional Airport and Pinal Air Park are expected to develop extensive employment based land uses. In keeping with the Town's direction to become a self sustaining community, employment opportunities are considered especially important land use targets. Local jobs will help Marana become a complete and vital community.

Future development in Marana will include a variety of land development opportunities to meet increasing demands for housing, commerce, employment, schools, parks, recreation, open space, and other services. Development of a viable Main Street (downtown) will create a strong Town focus with higher density housing, commerce, and community activities.

5.1.5. Current, Proposed or Newly Completed Projects

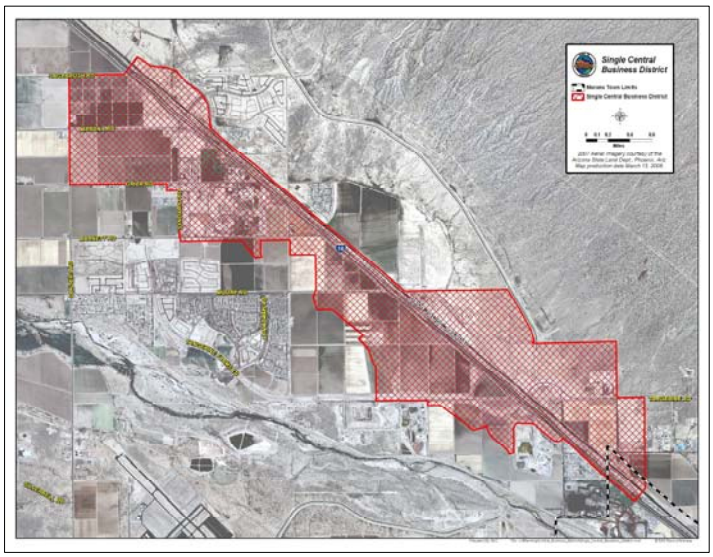
Downtown Marana

The new Marana Municipal Complex (MMC) was completed and opened in May 2005.

This was a big first step in establishing the Marana downtown or main street area. Through the formulation of multiple Specific Plans, the dreams of what Marana's downtown could look like, were finalized and adopted by Council. Along with the MMC, Northwest Fire District built a new station along Marana Main Street and the Marana Health Center has begun construction on their 26 acre facility with the first phase scheduled to open in spring of 2011.

The Single Central Business District

Successful communities, places where people choose to live, work, shop and play – have a business district or "core" which serves as a focal point in the community. Creating a central commerce area for Marana began with the Town Council's authorization of a Single Central Business District (CBD) in May of 2008. The Town's Single Central Business District is part of an economic development strategy to reinvestment in our community, support existing business and promote new development by the private sector.



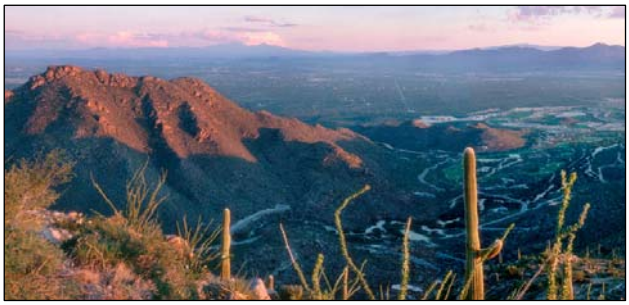
The first new retail center located within the CBD opened in August 2010. In addition, the Marana Health Center has broken ground and construction is progressing on the initial steel framework that will ultimately support a state of the art facility that will house the first phase of a 972,861 square foot health center campus with related services.

The Single Central Business District (CBD) is generally located along the west side of I-10, from Marana Road southerly to Tangerine Road and extending approximately one mile east of I-10 at Tangerine Road. The CBD includes the current businesses along Sandario Road as well as the areas for future development at the Marana, Moore and Tangerine Roads interchanges.

5.1.6. Opportunities and Challenges

While the Northwest area is highly suited for development, the northern portion of the Santa Cruz River has an extensive floodway area that has historically been used for farming. This area has seen only limited development options such as mining operations or improvements that would have no impact on the floodway. Future development of residential and industrial areas will depend on further extensions of necessary infrastructure such as bank protection, wastewater, and sewer service.

Northwest Marana is particularly well positioned for receiving the bulk of future development over the next 25 years. As noted previously in the Existing Conditions section, there have been several projects developed or proposed in this area. Continuing development of infrastructure will accommodate the anticipated growth in this area.



Planned communities in the northeast have evolved in response to natural conditions with less intense development. When developed, projects like Dove Mountain, Saguaro Ranch, Tangerine Crossing, Tortolita Vistas and Sky Ranch responded to physical constraints and natural conditions by creating development more compatible with their existing settings. Disturbance limitations and mitigation lands have been incorporated into a majority of all developments in northeast

Marana. In addition, the Tortolita Preserve with 2,400 acres within the Tortolita Fan was set aside for preservation in 2001 by a lease agreement with state lands, as part of the Dove Mountain development project. The northeast continues to be a large growth area but in a less dense manner due to the disturbance restrictions.

5.1.7. Issue Identification and Trends

Population Growth

In 2006, at the height of the economic boom, the Department of Economic Security (DES) adopted population forecasts that showed Marana at a population of 43,352 by 2010. Due to these forecasted numbers being extremely high for all jurisdictions within Pima County, Pima Association of Governments (PAG) came out with more reasonable numbers that account for the downturn in the economy. These numbers are unofficial, but will be used in this General Plan since they represent the best estimate of current conditions. This year the 2010 census is being completed and those official numbers will be incorporated into any future amendments of this plan.

The unofficial PAG data forecasts a moderate increase in the population of Marana. This growth rate will be closer to the pattern the Town experience in the early 1990's and will continue to increase for the next 10 years. The estimated population growth of Marana is presented in the Figures 5.3 and 5.4 below.

Population in Marana can be expected to grow from 35,559 in 2010 to over 76,000 in 2020, an increase of 115%. That number will grow to nearly 100,000 in 2030. Although the rate of growth decreases as the total population grows, the increase in absolute number remains significant.

The Census Bureau's 2006-2008 American Community Survey Estimates identified that the median age of the community's 29,668 people was 37.4 years, with 27 percent age 18 and under and 13 percent age 65 and above. The median household size was 2.76 persons. The Town exhibits a high degree of home ownership with nearly 80% of the population living in owner occupied housing. The estimated median household income in Marana was $66,841.

Figure 5.3 – Estimated Population Growth Chart (2000-2030)

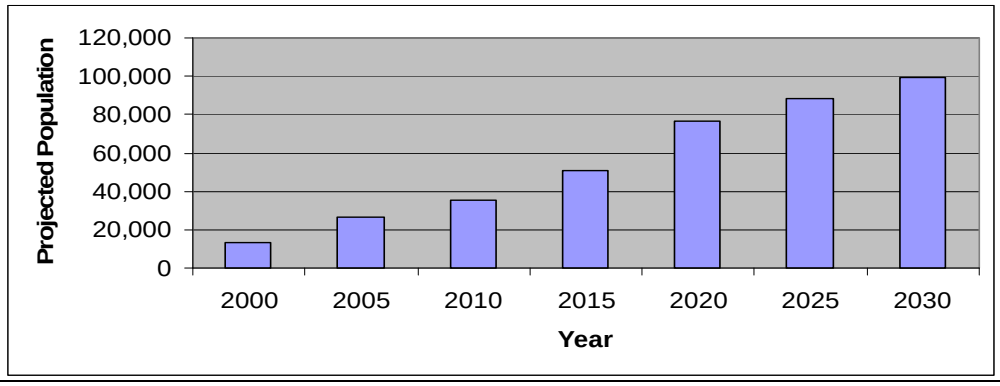


Figure 5.4 – Estimated Population Growth Table (2000-2030)

Projected Population Growth		
Year	**Population**	**5 Year Percent Increases**
2000	13,556	520% (from 1990)
2005	26,725	97%
2010	35,559	33%
2015	51,046	44%
2020	76,553	50%
2025	88,678	16%
2030	99,238	12%

Growth Areas

Recent growth has been characterized by development of master planned communities such as Dove Mountain in the northeast, Continental Ranch and Continental Reserve in the south, and Gladden Farms and Rancho Marana in the northwest. The Growth Areas Map can be found on page 5.1.E.

Northeast Area

This growth area has significant environmentally-challenging areas that constrain development. This area will see future development that will include land preservation, limits on land disturbance, and projects, commercial and residential, which will be carefully integrated with the natural conditions. Residential communities will generally be low-density and/or clustered development which responds to the environmental constraints. A significant portion of the land may be preserved as open space to preserve habitat and resources. It is anticipated that this area will see an increase in both residential and commercial development with the completed Twin Peaks interchange which provides and easy connection to the Dove Mountain area. This road will accommodate a tremendous amount of traffic not only from Marana residents but also Oro Valley and the unincorporated residents. Key features will include:

1. Master planned communities incorporating clustered development.
2. Large lot custom/semi-custom homes.
3. Resort development.
4. Large scale commercial development.
5. Mixed-Use projects.
6. Employment-based Industry.
7. Significant open space, trails, and recreational amenities.

Northwest Area

This area has been targeted as the prime growth area in the next decade. Recommendations for land use, transportation, and other growth factors involve these key features:

1. Town Center.
2. Residential communities of all sizes and types
3. Commercial and industrial uses along the Interstate 10 corridor.
4. Medical industry opportunities.

Pinal County Area

As a northern extension of the Marana Northwest Area, this area of Pinal County is expected to see significant growth. Pinal County has identified this part of the county as a growth area with several large scale development projects being considered. Development of a 1,000 acre residential project is underway at Red Rock, and other large land areas are being planned for residential and commercial development. Marana will work closely with Pinal County in future planning. Key features of future development will include:

1. Master planned communities.
2. Large lot custom homes in outlying areas.
3. Commercial and industrial uses along the Interstate 10 corridor.
4. Industrial employment development in the vicinity of Pinal Air Park.

Southwestern Area

The southwestern area of Marana mainly focuses on the growth around the Marana Regional Airport. There is opportunity for industrial uses as well as residential communities located a safe distance from the airport. The BOR land adjacent to the airport lends itself to great recreational opportunities. Key features of future development will include:

1. Commercial and industrial development surrounding the Marana Regional Airport.
2. Strategically located residential communities of varying sizes and types.
3. Regional recreation opportunities.
4. Expansion opportunities for the Marana Community Correctional Treatment Facility.

Southern Area – Infill Opportunities

The South area contains several existing master planned communities and residential subdivisions. Commercial facilities to serve these communities are located along major transportation corridors. This area is primarily an infill area that will see

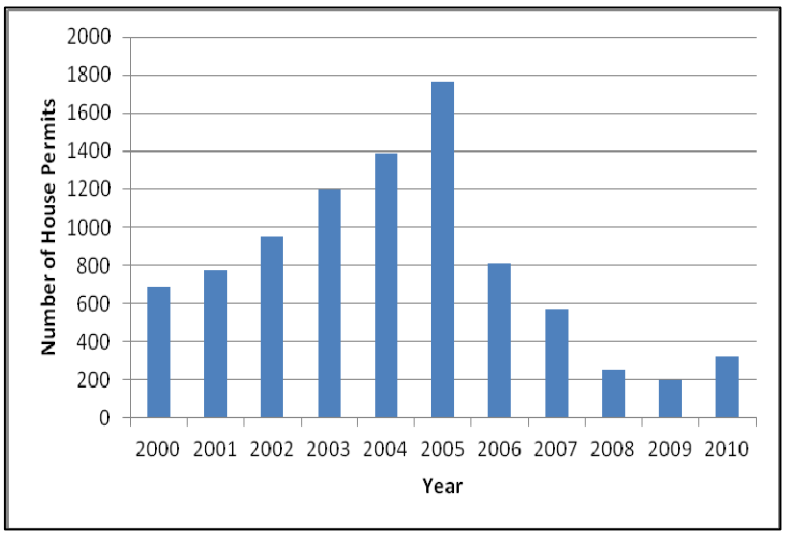
minimal growth and will focus on the completion of the developments that have been the primary growth for all of Marana since the early 90's. in this area that have Key features of this area include:

1. New development along the new Twin Peaks Interchange.
2. New communities such as DeAnza, Pines and Willow Ridge. Springs.
3. Corridor commercial activities along Interstate 10, Ina Road, Thornydale Road, and Orange Grove Road.
4. Employment-based industry.

Growth Trends

In 2005 the Town hit its all time high of 1,766 new home starts. This was up 27% over the previous year. Development of new homes was occurring at rates so high it was extremely difficult for staff to review and issue permits in the same time frames of previous years. Builders found it equally difficult to find enough contractors to build the homes. In 2006 the bubble burst and Marana was not immune to the serious economic crisis that has crippled this Country for years. A steep decline in new home starts continued for four years, reaching a low of 198 in 2009. This was the lowest number of documented new home starts for a single year since the Town began keeping record. Finally in 2010 it appeared that the downward spiral was over. Even after the federal incentives were no longer offered, building permits remained constant month over month. In the first six months of 2010 more new single family home permit were issued than in the entire previous year. Conservatively the estimated number of new home permits for all of 2010 is 322, a 63% increase over 2009 (as shown in Figure 5.5 below).

Figure 5.5 - Estimated New Home Permits (2000-2010)



2000	690
2001	779
2002	956
2003	1196
2004	1388
2005	1766
2006	809
2007	570
2008	251
2009	198
2010	*322

Number of new Single Family Residential Permits per year. (*estimated)

5.1.8. Strategic Direction

Community Building is one of the five focus areas of the Strategic Plan. The Town will continue to secure all necessary water resources and infrastructure that will be needed since much of Marana's vacant land area is anticipated to be new residential communities over the next 20 years. Much of the development will likely be within master planned communities that include a variety of choices for area residents, such as: single family residential (detached and attached housing), family oriented neighborhoods, active retirement communities, townhomes, condominiums, and multifamily apartments as well as commercial and industrial. Development of community retail, commercial, industrial and service uses for the growing population will keep pace with the residential growth. Marana will continue to look at opportunities for future annexations that will benefit the Town and its citizens.

A goal of the Commerce Center Focus Area of the Strategic Plan calls upon the Town to build upon the unique combination of assets to attract and maintain career-oriented commerce. In 2010 the Economic Roadmap for the Town was adopted. The adoption of this document fulfilled the first commerce initiative of the Town's Strategic Plan. It strategically located areas within the Town that were ideal and important for its economic growth. This will guide growth and bring much needed high wage earning employment to the Town.

Design enhancements at the nearly complete Interstate 10 - Twin Peaks interchange. Designs elements were chosen by the citizens through public engagements.

Future development along the Interstate 10 corridor is important to the entire community. The interstate functions as Marana's main arterial roadway, and is the primary link between northern and southern areas of Marana, and is the major gateway to the community. For residents, the interstate is an important connection between Tucson and Phoenix. Visitors and travelers derive their first impressions of Marana, and residents derive daily impressions from views along the corridor. Areas along Interstate 10 are particularly appropriate for commerce parks, industry, tourist services, and warehousing. Enhancing the I-10 corridor through the future I-10 Beautification program is a very important goal for the Town to achieve. The opening of the beautiful new Twin Peaks interchange in November of 2010 set the bar high for all upcoming projects. Future planning will include programs to bring enhancements

to business and residential areas as well as possible high speed rail, which can accommodate multi-modal centers. Programs may include enhanced landscaping, architectural or artistic elements that reflect Marana's heritage, diverse environment, and vision.

The Town continues to strive to meet the Town's Strategic Plan Focus Area of being the recreation capital of Arizona. In 2010 the Town opened the new 43-acre Crossroads at Silverbell District Park in the southern area of Marana where recreational services were critically lacking. Over the next ten years Marana will strive to deliver many more recreational opportunities to its residents and surrounding neighbors.

Crossroads at Silverbell District Park Opening Day.

Conservation of both natural and cultural resources is an important factor in the Town's planned land use. Large areas of significant natural resources have been identified in the Tortolita Fan in northeast Marana that have a range of development constraints. Those areas are best suited for low density residential development, residential clusters that minimize site disturbance, or no development at all except low impact, passive recreation amenities. Additional conservation measures may be identified in the Draft Habitat Conservation Plan (HCP), for areas of important wildlife habitat. In many areas, cultural resources overlap conservation measures identified in the Draft HCP and will also serve to protect cultural resources such as the Marana Mound. The Land Development Code also contains the Cultural Resource Ordinance, which directs development to avoid and/or mitigate impacts to important cultural resources.

Development in natural areas should be configured to minimize land disturbance and protect important natural areas by designating contiguous, well connected areas of natural undisturbed open space (NUOS). Setting aside riparian areas and adjacent uplands as NUOS is a viable conservation measure that may allow land development while conserving the most valuable natural resources.

Preservation and interpretation of cultural resources is a critical objective in planning for Marana's future. Identifying sites with historical significance is the first step in achieving this objective. The Town strives to work with other agencies and jurisdictions in reviewing development applications and capital improvement projects. This careful planning will allow the Town to record our heritage and make sure sites and information are available for current and future residents to enjoy.

SPECIAL PLANNING AREAS

The Town is establishing two specific special planning areas as depicted on the Land

Use Map on page 5.1.D. These areas are of special concern as they relate to development that may take place in the future.

Tangerine Road Special Planning Area

Tangerine Road will someday be a major east-west connector with an ultimate design of six or more lanes. The Town sees the great potential in this area and the Economic Roadmap identified three of the nine activity centers along the Tangerine Road corridor. This area does have some environmental and physical constraints that will have to be addressed, but overall this area will be critical to the economic growth of the Town.

Avra Valley Eastern Connection

The Draft HCP identifies wildlife corridors that have the potential to provide wildlife linkages to connect the Tortolita and Tucson Mountains. At this location there is a convergence of two wildlife corridors that will need to be look at for all design and development alternatives that can minimize the impacts for future infrastructure. The town will need to work with ADOT, the environmental community, and private developers to investigate alternative designs and financial funding opportunities to address this contradiction. When planning infrastructure in this area, careful consideration will need to given to the placement and design, and need in order to limit impacts to wildlife.

LAND USE PLAN CATEGORIES

This section reviews land uses and their categories as depicted in the Land Use Map on page 5.1.D and delineated in the Land Use table in Figure 5.6. Residential development is the predominant land use, occupying more than 50% of the total land area. The residential categories provide a range of densities within each designation. However, the maximum density cannot always be achieved because of land use policies or physical constraints. Commercial and industrial uses may potentially accommodate a wide range of uses.

The Land Use Map also identifies an area in the Tortolita Mountains where the Town does not foresee or desire the extension of services related to development. This area contains many physical challenges (drainage, flora, fauna, and lack of infrastructure) that do not support extending urban services to facilitate development at this time.

The land use designation for the areas within Pinal County has been updated to reflect changes made to the Pinal County Comprehensive Plan which was updated in 2009. The planning area boundary in Pinal County was slightly reduced based on a partnership with the City of Eloy to keep the future La Osa project within one jurisdiction. Further planning will be coordinated with Pinal County, Arizona State Land Department, Pinal Air Park and the City of Eloy.

Figure 5.6 – Land Use

General Plan Land Use			Source: Town of Marana	
	Marana Acres	Marana % of Total	Planning Area Acres	Planning Area % of Total
Airport	2,158	2.78%	6,768	4.65%
Commercial	3,146	4.05%	5,548	3.81%
Industrial	9,818	12.63%	26,799	18.41%
Park/Open Space	3,397	4.37%	5,874	4.04%
Public/Institutional	487	0.63%	527	0.36%
Rural Density Residential	20,692	26.62%	39,001	26.79%
Low Density Residential	9,881	12.71%	26,104	17.93%
Medium Density Residential	5,475	7.04%	11,205	7.70%
High Density Residential	72	0.09%	72	0.05%
Mixed Rural	205	0.26%	265	0.18%
Rivers, Major Washes and Drainage Channels	1,683	2.16%	2,257	1.55%
Master Plan Area	19,365	24.91%	19,392	13.32%
I-10 Corridor	1,361	1.75%	1,759	1.21%
TOTAL	**77,740**	100.00%	**145,571**	100.00%

Public/Institutional (PI)

This designation has been given to existing government facilities and public schools.

River, Major Washes, and Drainageways (RWD)

This designation identifies major conveyances of water, which consist of both natural and man made structures. These areas are not suitable for development; however uses such as multiuse trails would be acceptable in some situations.

Park/Open Space (P/OS)

The Park designation identifies existing and proposed sites where neighborhood, community, district, and regional parks as well as primary, connector, and local trails are proposed for development or already exist. Most parks contain a mix of passive and active recreation. Open space designations apply to areas the Town desires to conserve as a natural resource and could possible be used for passive recreation such as walking for hiking.

Rural Density Residential (RDR)

This residential land use is characterized by single-family detached homes on very large properties, including ranchette and estate lots at a density range of 0.1-0.5 residences per acre. Appropriate locations generally include historically agricultural or environmentally sensitive areas and areas where equestrian uses are allowed or where a rural character is desired. Limited neighborhood commercial development may be allowed within this classification.

Low Density Residential (LDR)

Low Density land use is characterized by single-family detached homes on relatively large lots in a density range of 0.5 – 2.0 residences per acre where the retention of a semirural, open character is desired. Environmental factors may allow for clustered housing projects. Appropriate locations include those areas of the community where there may be limited infrastructure. Commercial development is allowed that serves the residential development with both pedestrian connectivity and automobile access. Other appropriate uses serving the community under this classification may include schools, parks, recreational areas, and religious institutions.

Medium Density Residential (MDR)

Medium Density Residential is characterized by single family detached/attached homes on moderately sized lots in a density range of 2.1 – 8.0 residences per acre. Other potential opportunities for residential development in this category include various types of multifamily housing that conform to the prescribed density range. Typically this classification applies to those areas that benefit from existing capacity of public services and utilities, and areas where services and utilities can be extended from existing infrastructure. Other appropriate uses serving the community under this classification may include commercial, schools, parks, recreational areas, centers, and religious institutions.

High Density Residential (HDR)

The High Density Residential land use is characterized by development with attached, clustered and multistory residential units with a density greater than 8.1 residences per acre. The intent is that the high density residential component be located in and around the commercial corridors or around an outlying center of a master planned area. Other appropriate uses serving the community under this classification may include commercial, schools, parks, recreational areas, and religious institutions.

Mixed Rural (MR)

This designation reflects development of varying uses within rural settings in close proximity to major transportation corridors. MR developments are required to maintain performance standards that provide site specific mitigation and design standards to ensure the compatibility of the various uses in these areas. Residential development is allowed as long as the overall density does not exceed two residences per acre.

Commercial (C)

This designation includes commercial uses that range from neighborhood to regional scale commerce. Those on the neighborhood scale may include convenience oriented commercial uses that serve single neighborhoods or groups of neighborhoods. Those

on the intermediate or regional scale may include major commercial centers that serve a wider population base. Development may include regional commercial, large scale retail establishments, local and tourist oriented services, large outdoor sales lots, office development, medical complexes, and research centers.

I-10 Corridor

The I-10 Corridor identifies the Interstate 10, frontage roads and Union Pacific Railroad property that diagonally bisects the Town. The eighteen (18) mile stretch of the highly traveled cross country route is a valuable asset as it allows visitors and travelers, as well as locals to experience the Town.

Airport (A)

This designation defines the operating areas of the Marana Regional Airport and Pinal Airpark, as well as surrounding area that may be part of associated long range development plans. These surrounding areas would include those uses allowed in the Industrial (I) and Commercial (C) land use categories of the General Plan, as well as a range of employment, office and hospitality uses which are compatible with airport operations and which further the economic development goals of the General Plan and the Economic Roadmap.. If determined, compatible multi-family residential uses can be included as well. These areas also serve as a buffer for surrounding residential areas.

Industrial (I)

Industrial designations are intended to provide locations for a wide range of light and heavy industrial uses, including major employment centers, light industrial uses, research and development activities, offices, and institutions as well as mining, storage, processing, fabrication and distribution of goods. Certain areas are more compatible with intensive industrial and manufacturing activities as well as mineral extraction and processing. Design standards may be implemented for specific areas such as along Interstate 10 where lower intensity uses may be encouraged to enhance the Town's appearance. Commercial uses are acceptable in these areas to support the industrial activities that are the predominant use.

Master Plan Area (MPA)

Master Plan Areas identify specific plans that have been adopted by the Town. The purpose of the MPA is to allow flexibility in site planning and design. Active specific plans in the Town are characterized by a variety of intensities and uses, including low to high density residential, differing scales of commercial development, industrial and employment related uses, and significant open space and natural areas. The MPA should be utilized in sensitive natural areas with cluster development and contiguous natural undisturbed open space (NUOS) that results in the best mix of development and conservation. Future MPA locations will be determined by their ability to create a functional, well designed, flexible specific plan.

5.1.9. Goals, Policies, and Actions

Goals, policies, and actions for the Land Management group are outlined below. Goals are broad statements that provide the foundation and vision for Marana's future land use and development. Policies encourage sensible, planned decisions for evaluating rezoning and development proposals. Actions are specific tasks to implement each policy. A summary table of Land Uses Goals, Policies, Actions, Responsible Party and Implementation time frame is included in the Implementation Plan.

Goal 1: Adopt sustainable development as a unifying goal to secure Marana's future.

a. Policy: Preserve and protect our natural resources in order to promote a sustainable community.

1. Action: Use compact development where appropriate coupled with best management practices to improve environmental outcomes.
2. Action: Extend the commercial and residential design standards to include sustainability with the goal of reducing energy use and water consumption.
3. Action: Preserve the Sonoran Desert character by evaluating appropriate site disturbance standards and preserving native plants.
4. Action: Provide opportunities for both onsite and offsite riparian habitat restoration.

b. Policy: Create land use patterns that protect significant natural and cultural environments and provide open spaces.

1. Action: Identify sensitive land areas, including areas with significant wildlife habitat or exceptional historic, cultural, natural and scenic resource value and work to promote their preservation.
2. Action: Apply recommendations from the Draft Habitat Conservation Plan (HCP) as it may be adopted to identify areas inappropriate for development, currently preserved lands, and significant natural areas where land disturbance should be limited.
3. Action: Develop standards to mitigate development in significant natural areas and riparian areas in support of the recommendations in the Draft HCP as it may be adopted.
4. Action: Work to preserve natural areas with density environmental resources, unique landscape features, and

important species.

5. Action: Work to preserve the continuity of habitat and the connectivity of wildlife corridors.
6. Action: Prevent the introduction of nonnative or invasive species into the natural environment.
7. Action: Work to preserve the movement of native fauna and pollination of native flora through the natural landscape.
8. Action: Review and update the Native Plant Ordinance to ensure protection of native vegetation.

c. Policy: Promote a favorable business environment by providing a consistent and user-friendly regulatory environment that responds to the needs of established businesses in all policy areas and supports the development of small and large businesses.

1. Action: Provide for certainty, consistency, and timely processing of the approval process.
2. Action: Support increased public/private partnering among all entities involved in economic development.

d. Policy: Promote a healthy, adaptable local economy that is vital to the community's ability to provide a highly desirable Quality of Life, high levels of services and amenities.

1. Action: Assist persons and businesses in understanding and working through regulations and permit processes.
2. Action: Provide quality urban spaces, parks and recreation, with trails and walkways that serve the community.

e. Policy: Preserve land with highly valued cultural resources.

1. Action: Preserve areas with significant cultural resources and consider programs for education and interpretation at appropriate locations.
2. Action: Continue working with reviewing agencies in the development review process that provide sensitive analysis of cultural affairs.

f. Policy: Support development that provides open space and trails, preserves views, and responds to the rural lifestyle.

1. Action: Continue requiring developers to provide open space, trails, and connectivity with paseos in their projects.
2. Action: Require multipurpose trails in the design of buffers between urbanizing and rural areas.
3. Action: Continue to pursue funding sources and extensions of the

Tortolita Mountain and Santa Cruz River trail systems.

g. Policy: Promote appropriate mitigation, screening and buffering of current and inactive excavation areas from surrounding land uses.

1. Action: Adopt operations and performance standards for excavation activities.
2. Action: Encourage creative reuse and reclamation of exhausted resource extraction areas.
3. Action: Work to create best practices that are used to manage reclamation of excavated properties.

Goal 2: Provide opportunities for diverse developments that maximize the benefits to the community.

a. Policy: Promote new development that is compatible with existing land uses.

1. Action: Establish appropriate land development designations with densities and intensities that complement existing natural conditions and residential areas.
2. Action: Develop guidelines for enhancing new development and mitigating potential impacts on existing neighborhoods.
3. Action: Implement buffers, and connections such as parks, open space, paseos, and trails where significant shifts in density occur or between older and newer neighborhoods.
4. Action: Locate commercial and industrial uses for direct access to arterial or collector roads without generating traffic into housing areas.
5. Action: Encourage mixed use development proposals for future Master Planning Areas in Marana.

b. Policy: Provide opportunities for a variety of housing types and economic levels.

1. Action: Designate a wide range of residential development densities from low density rural to multifamily urban.
2. Action: Designate areas with residential densities that will allow creative, affordable housing.
3. Action: Encourage the development of projects with mixed income residents and inclusive affordable housing units.

c. Policy: Provide opportunities for community facilities, events and attractions.

1. Action: Promote tourism in ways that are sensitive to the Quality

of Life of local residents.

2. Action: Continue development of the Marana Cultural and Heritage Park and provide educational programs for schools, tourists, and the general public.
3. Action: Continue working with partners such as the Marana Unified School District, YMCA, Pima Community College, Pima County Public Library, and the University of Arizona for the planning and development of a Marana Community Center.
4. Action: Continue working with the Bureau of Reclamation and other entities in the planning and implementation of the Bureau of Reclamation Park.
5. Action: Continue to support the Accenture Match Play Golf Tournament and actively promote development of resorts and other tourist facilities.
6. Action: Promote and support tourism and recreational development by expanding and improving airport operations.

d. Policy: Provide a development pattern that minimizes public expenditures.

1. Action: Encourage growth in locations where infrastructure capacity exists or can be easily extended.
2. Action: Encourage joint use amenities and public facilities.

Goal 3: Promote and maintain high quality design, development, and neighborhoods.

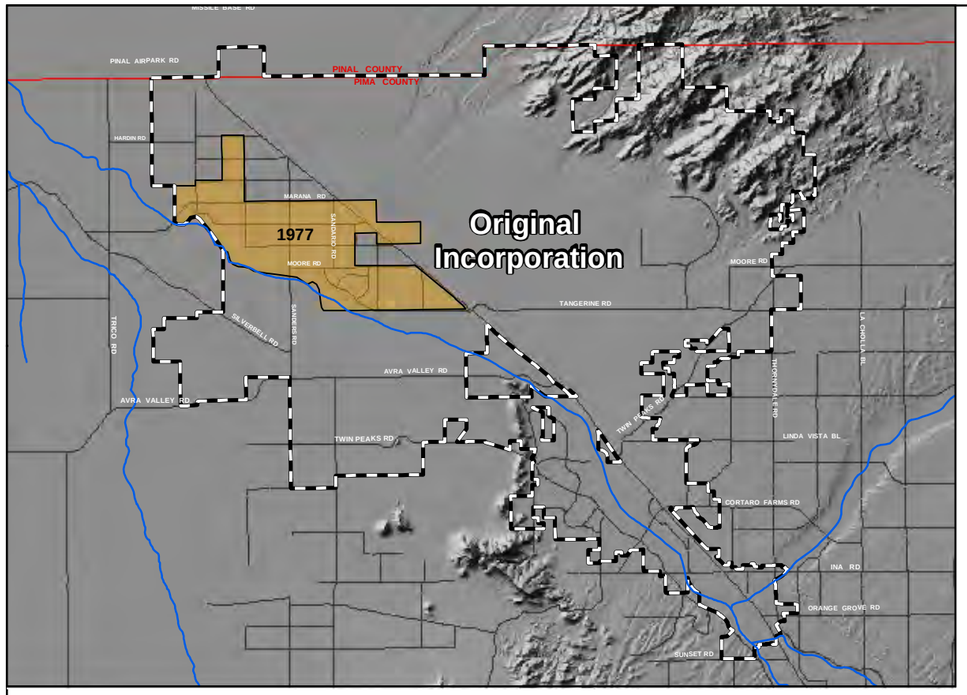
a. Policy: Continue to be on the cutting edge of development by promoting new and innovative practices.

1. Action: Monitor and update adopted commercial and residential design standards to assure design that enhances the Town's image and existing development.
2. Action: Continue to evaluate development proposals based on adopted commercial and residential design standards.
3. Action: Promote “green community” energy efficient standards, such as LEED (Leadership in Energy Efficiency and Design) or other similar programs, for public and private development projects.
4. Action: Adhere to or establish design themes in residential, commercial and industrial projects such as landscape, signage, or architectural features.
5. Action: Staff will research and propose changes to the Land Development Code to allow for more opportunities that promote and maintain quality developments.

b. Policy: Encourage high levels of maintenance and appearance of

properties.

1. Action: Promote neighborhood activities to maintain and upgrade neighborhoods.
2. Action: Develop a zoning enforcement program to address property maintenance issues within neighborhoods.
3. Action: Work to establish an I-10 beautification corridor.



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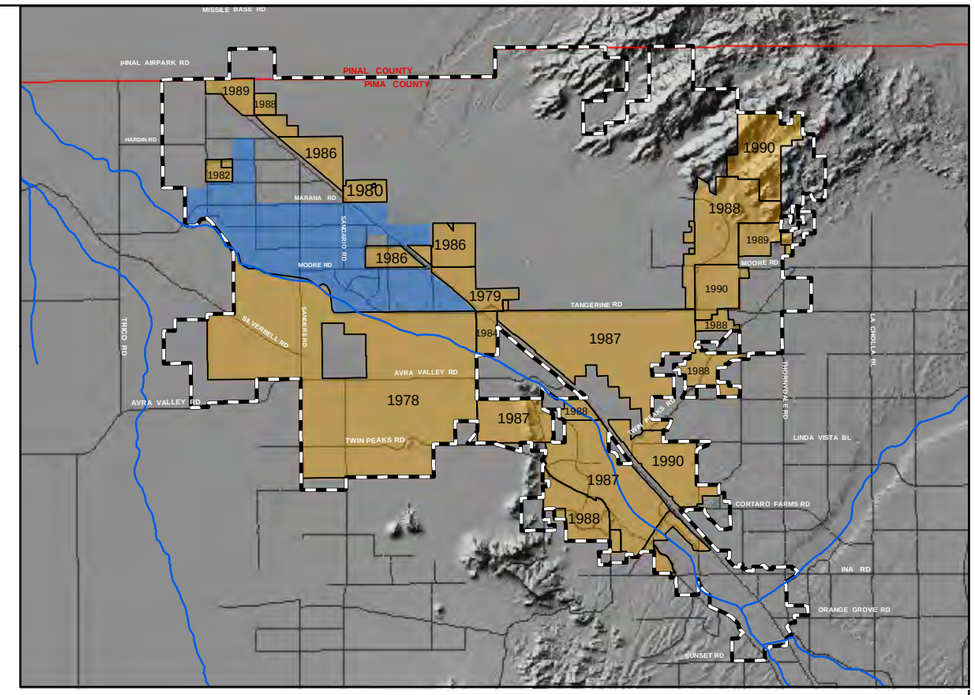

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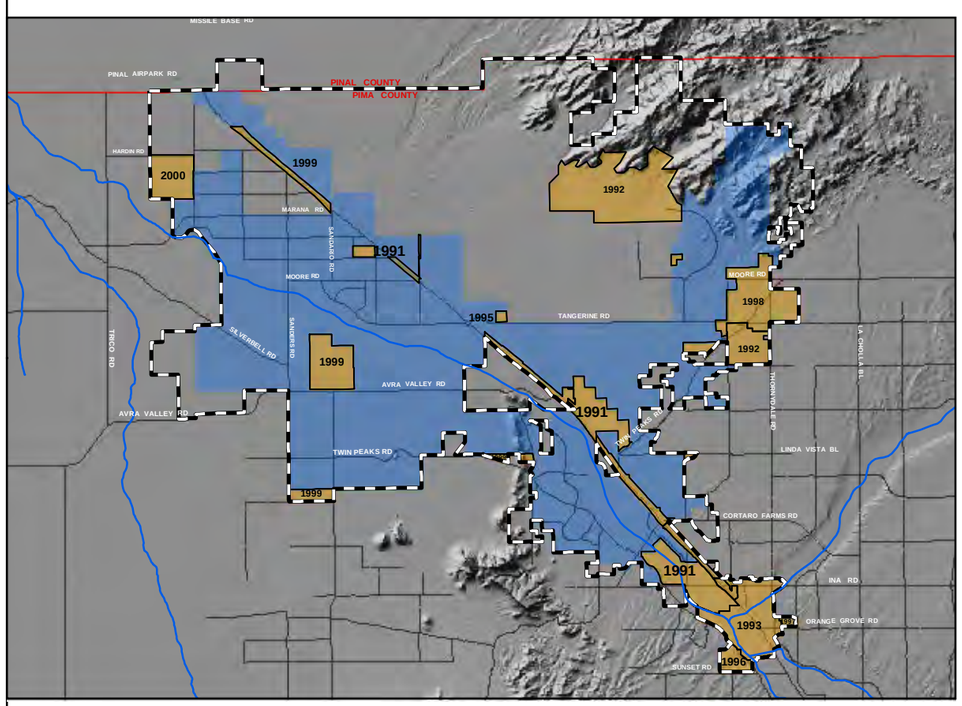

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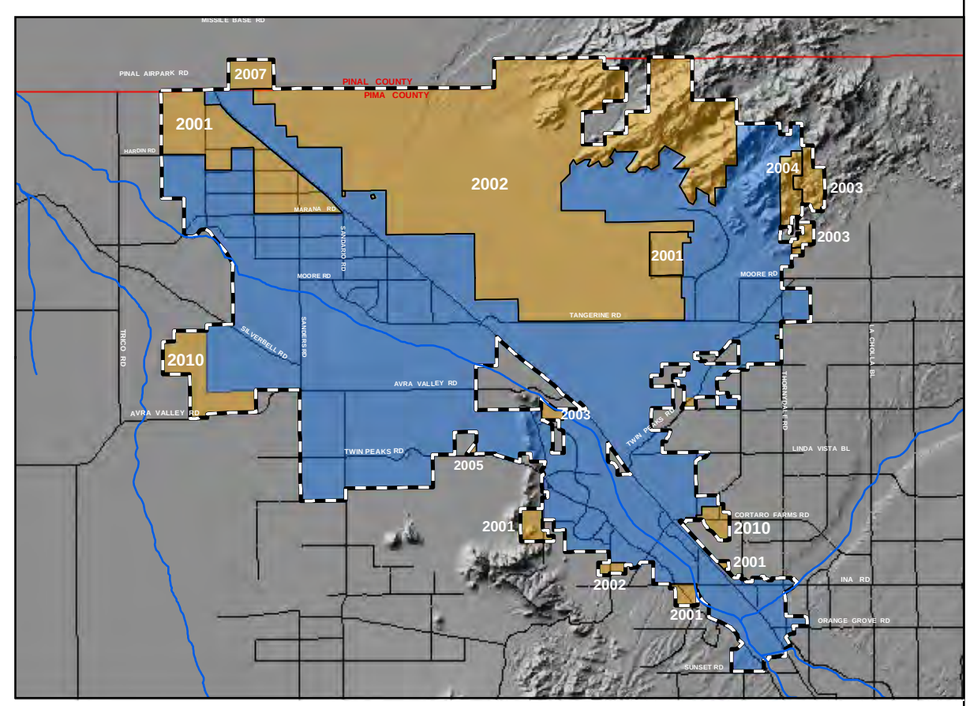

2010

MARANA

2010 General Plan

5.1.A

Marana Annexations

Previous Annexations

New Annexations

Marana Town Limits

Pima/Pinal County Boundary

Town Limits current as of December 1, 2010

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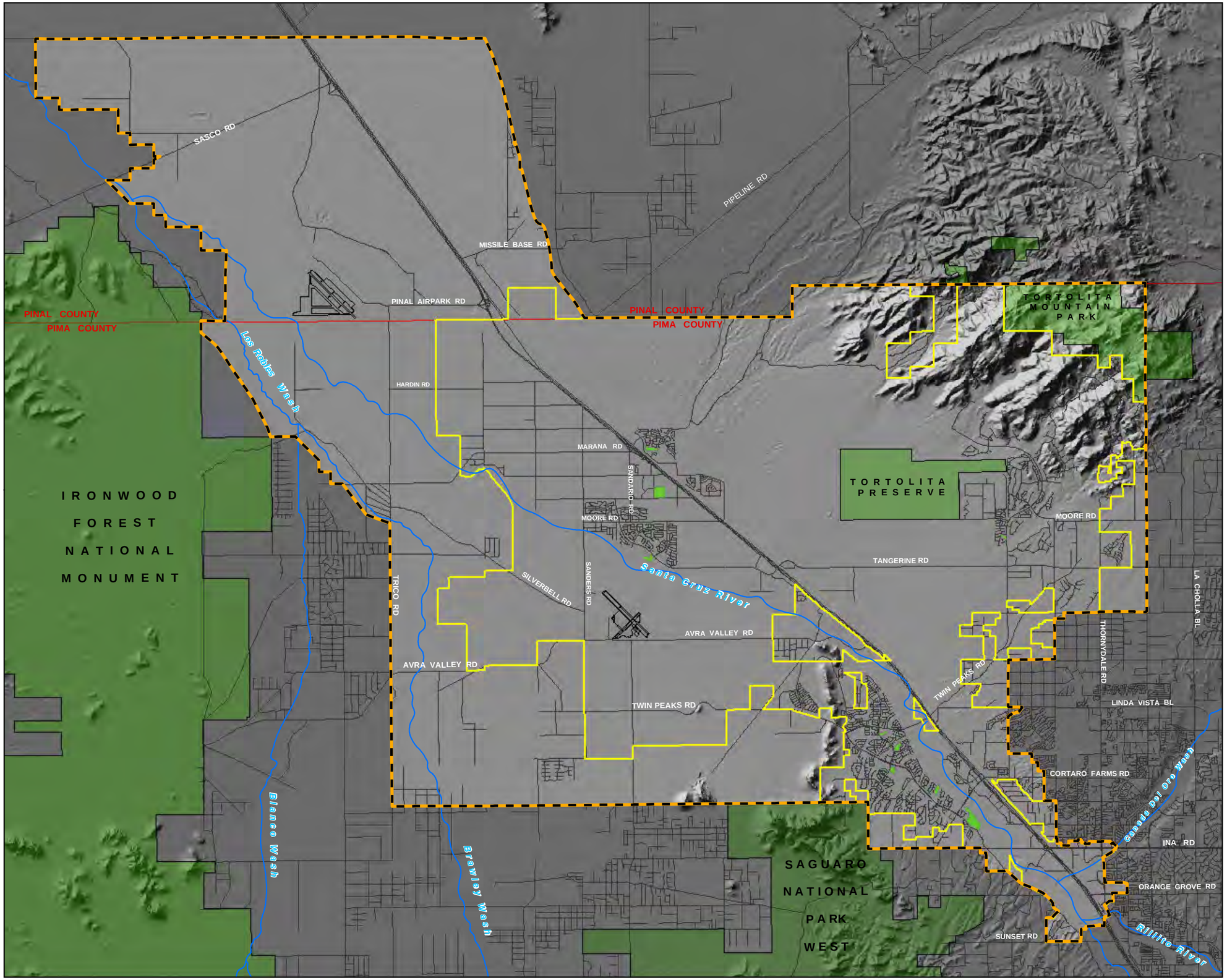

MARANA

2010 General Plan

5.1.B

Planning Area

- Planning Area
- Marana Town Limits
- Parks/Preserves
- Pima/Pinal County Boundary

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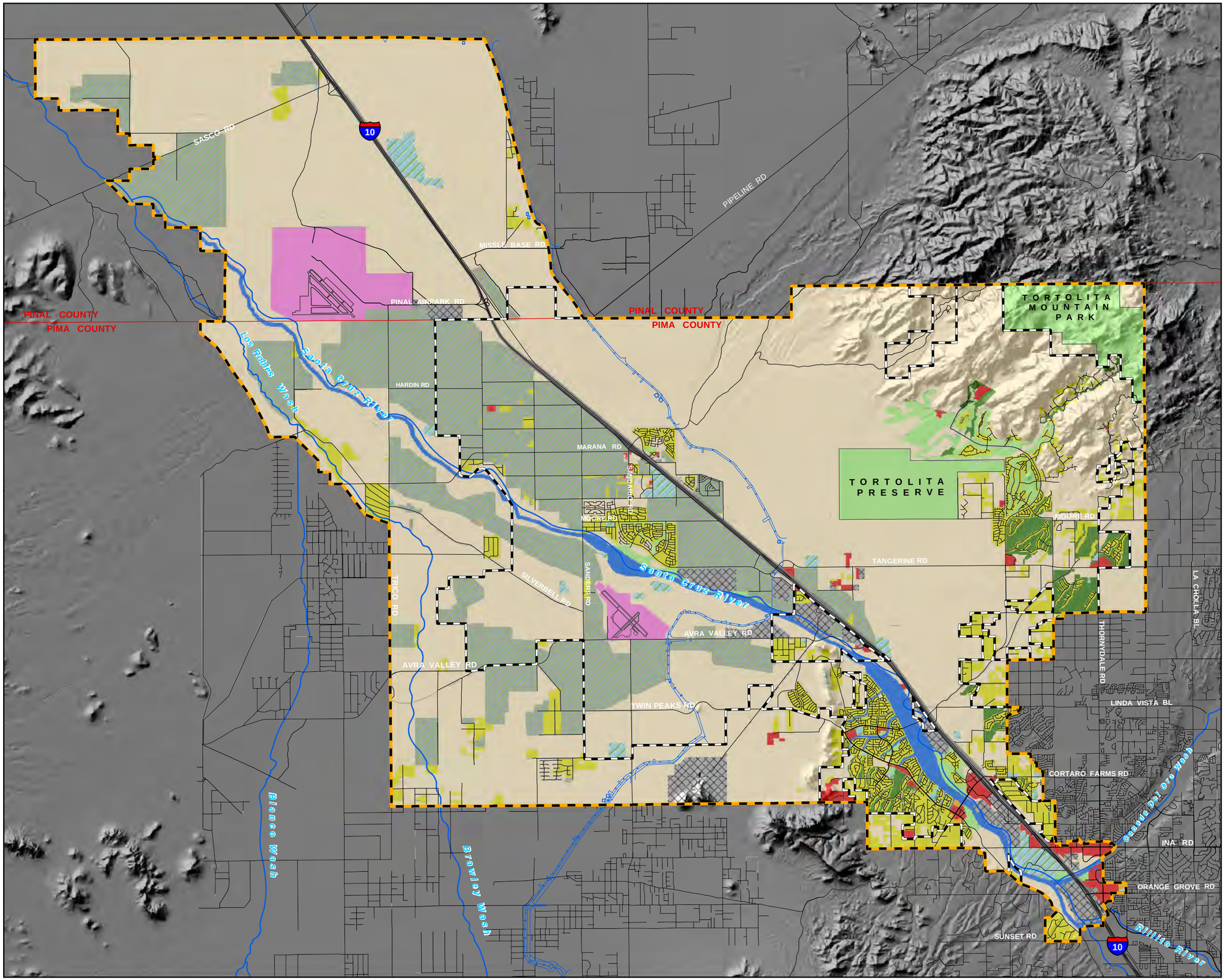

MARANA

2010 General Plan

5.1.C
Existing Land Use

- Planning Area Boundary
- Agriculture
- Airport
- Commercial
- Industrial
- Open Space
- Parks and Recreation
- Public/Institutional
- Residential Multi Family
- Residential Single Family
- Rivers, Washes and Drainageways
- Vacant/Undeveloped
- CAP Canal
- Pima/Pinal County Boundary
- Marana Town Limits

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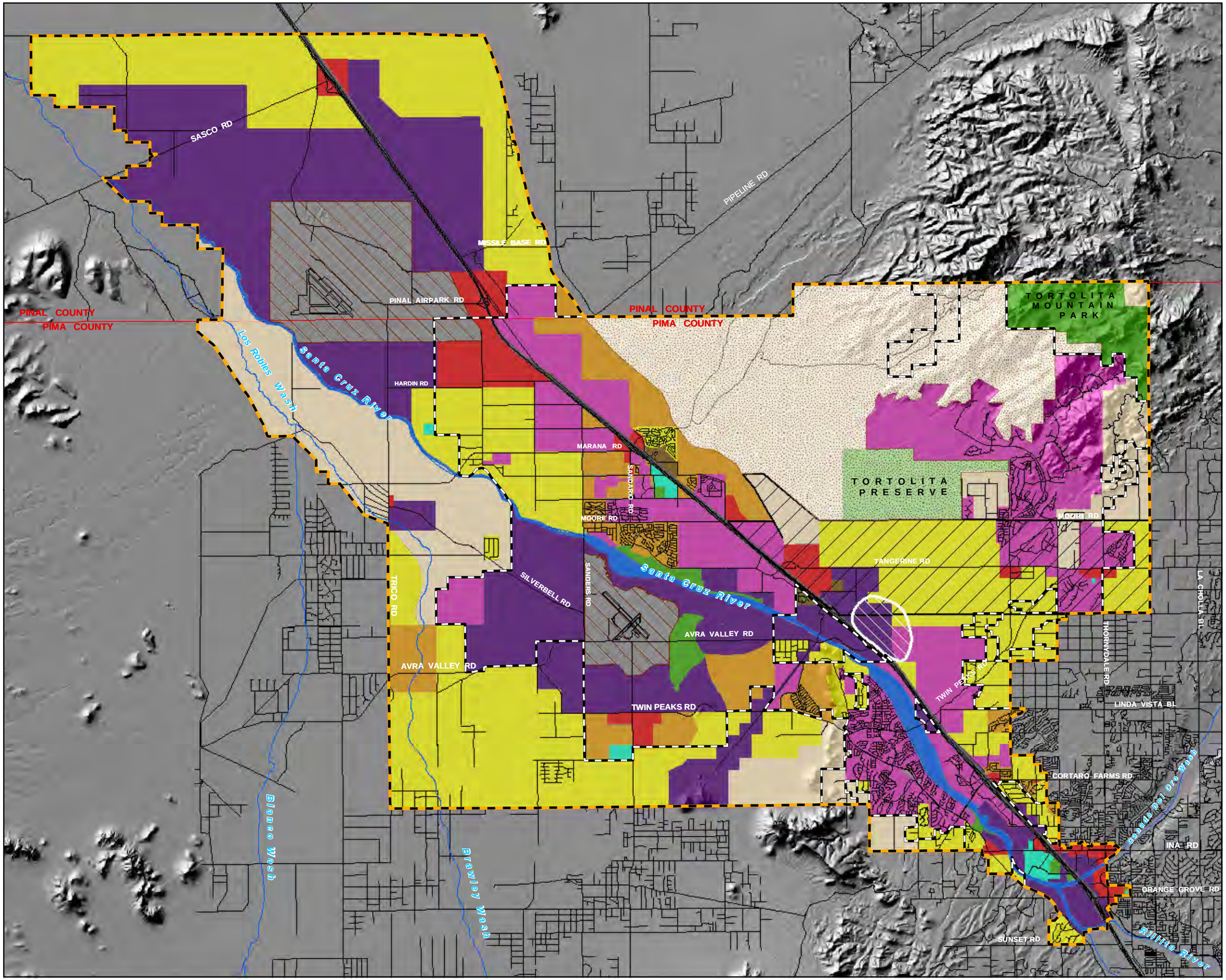

MARANA

2010 General Plan

5.1.D

Land Use

- Airport
- Commercial
- Industrial
- I -10 Corridor
- Rural Density Residential
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Master Plan Area
- Mixed Rural
- Parks/Open Space
- Public\Institutional
- Rivers, Major Washes, and Drainageways

Special Planning Areas

- Avra Valley Eastern Connnection
- Tangerine Road
- No Extension of Urban Services (Rural Density Residential)
- Planning Area Boundary
- Marana Town Limits
- Pima/Pinal County Boundary

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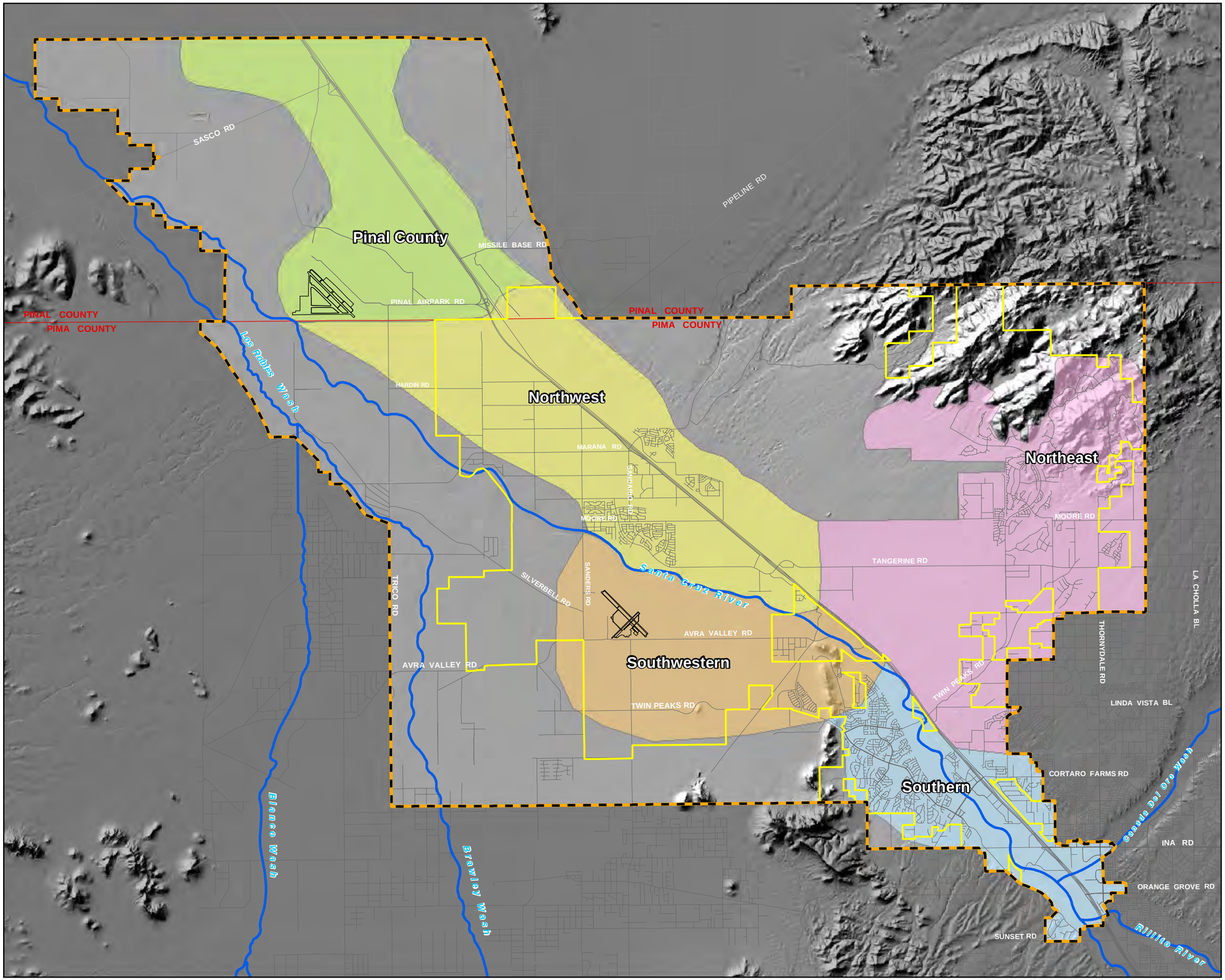

MARANA

2010 General Plan

5.1.E Growth Areas

- Northeast
- Northwest
- Pinal County
- Southwestern
- Southern - Infill Opportunities
- Planning Area
- Marana Town Limits
- Pima/Pinal County Boundary

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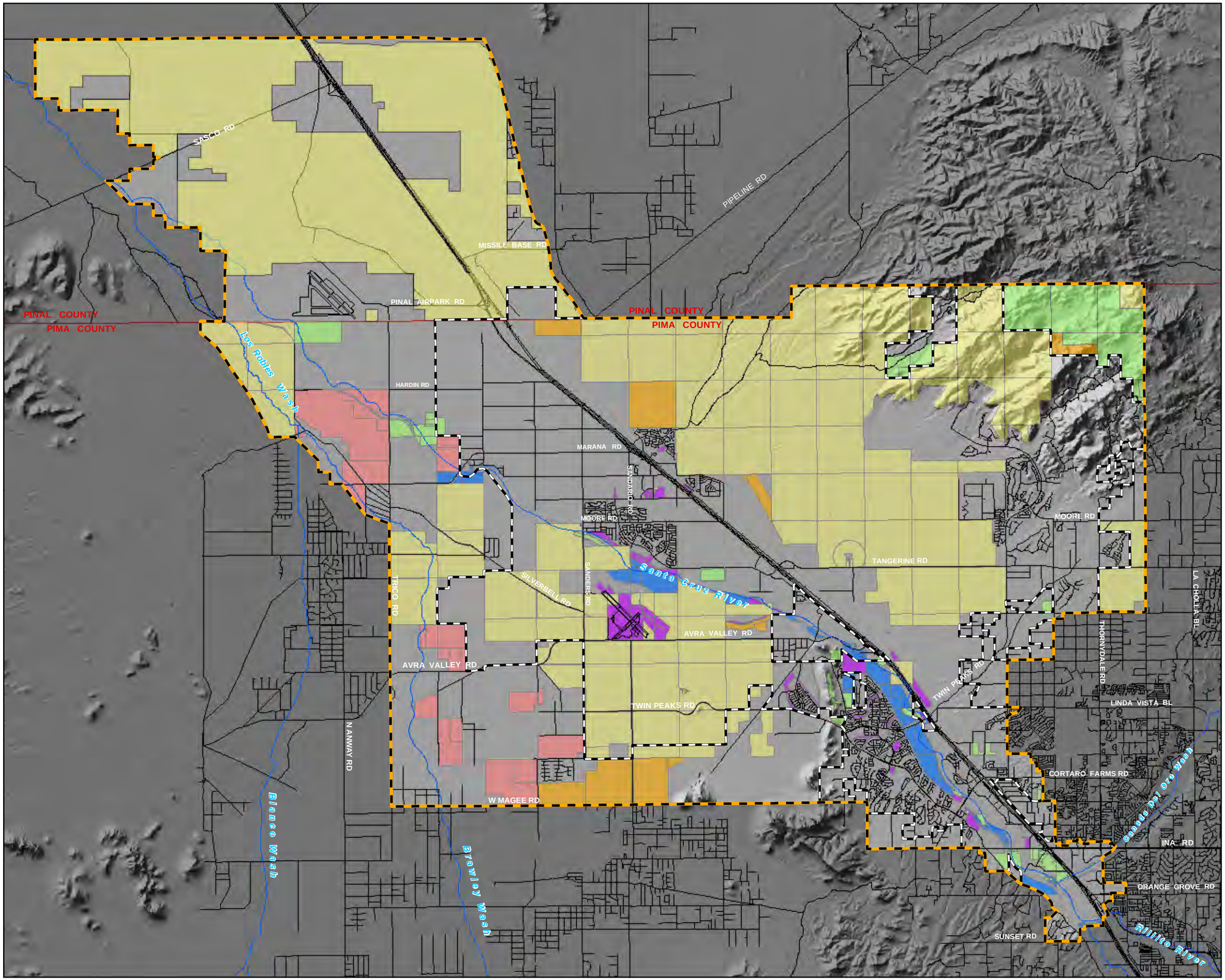

MARANA

2010 General Plan

5.1.F
Land Ownership

- Private Land
- State Trust Land
- Pima County Flood Control
- Other Pima County
- City of Tucson
- Federal
- Town of Marana
- Marana Town Limits
- Planning Area Boundary
- Pima/Pinal County Boundary

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SECTION 6

Introduction to the Built Environment Theme

The Built Environment Theme addresses man-made structures built on the land. The term "Built Environment" is used to describe all structures, facilities and other physical infrastructure. The Built Environment includes urban and rural development, telecommunications, utility networks, transportation systems, sewer treatment and conveyance systems, water treatment and conveyance systems, dams, and flood control structures. The term "environment" implies that the Built Environment is more than just the physical resources on land. The Built Environment represents the relationships between people, communities, and physical resources. Elements included in the Built Environment Theme include: Transportation, Housing, Public Facilities and Cost of Development. Transportation and Cost of Development are required to be in General Plans for Towns our size.

Theme	Content	Elements
	What we put on the land and how it will get there.	Transportation, Housing, Public Facilities, Cost of Development

6.1.1. Introduction

Transportation is a key determinant in the quality of urban form and community life. Transportation systems not only accommodate a region's access and mobility needs but also help determine the location, type and form of land development.

The Transportation Element approaches "traditional" transportation planning in a unique way. It recognizes the role of the automobile, but expands the field of mobility to integrate non-automotive modes such as public transit, cycling and walking. It also recognizes the inter-relationships among transportation, land use, and neighborhoods.

6.1.2. Background

The Transportation element was derived from a number of sources, including the Marana Transportation Plan Update (adopted in July 2001), the draft 2009 Transportation Strategic Plan, the Marana Regional Airport Master Plan Update, the Marana Regional Airport Part 150 Noise Study and the Marana Parks, Recreation, Trails, and Open Space System Master Plan. These documents were helpful in their analysis of existing conditions and the identification of needs and recommendations for improvement. A description of each document is provided in the appendix.

Although these documents forecast transportation and aviation activity through 2025, it is very difficult to predict with certainty the year-to-year fluctuations of activity when looking that far into the future. Because transportation and aviation activity can be affected by many influences at the local, regional, and national level, it is important to remember that forecasts serve only as guidelines, and planning must remain flexible enough to respond to unforeseen facility needs.

<u>The Role of Traffic Engineering in Long-Range Transportation Planning</u>

Traffic Engineering is that phase of engineering which deals with the planning, geometric design and traffic operations of roads, streets and highways, their networks, terminals, abutting lands and relationships with other modes of transportation for the achievement of safe, efficient and convenient movement of persons and goods.
Traffic Engineering involves two major areas of activity:

1. Team decision making about new streets, highways and other transportation matters;
2. Responsibility for the efficient, convenient, and safe use of existing transportation facilities.

The Marana Traffic Engineering Division is responsible for addressing traffic-related concerns and issues throughout the Town. Among the division's responsibilities are ensuring that the traffic signals in the Town operate safely and efficiently; that all appropriate traffic signs and pavement markings are in place and in good condition and that Marana's roadways and intersections have the capacity and geometric features required to handle current and future traffic volumes. One of the tasks of traffic engineering is long-range transportation planning. Working with sophisticated, computer-aided techniques, engineers and planners to determine transportation needs.

6.1.3. Desired Outcomes

Marana desires to create a balanced transportation system that is sustainable, multi-modal, accessible to all persons, and that provides safe and efficient mobility, while remaining sensitive to the needs and welfare of the region's wildlife.

6.1.4. Existing Conditions

Marana's current transportation system is largely dependent on the automobile as transit service within the Town is limited. The current transportation system comprises a range of conditions and facilities required to accommodate the demands of that automobile traffic. Existing roads range from 18 miles of interstate highway (with seven interchanges) to 125 miles of urban arterials, residential streets, and rural roadways. The Road Network map on page 6.1.A details the current transportation network.

Twin Peaks Interchange at I-10.

Marana's existing transportation network includes: street systems, bicycle and pedestrian circulation, transit, aviation facilities and services, and rail. The condition of these facilities is described below.

❖ **Street Systems**

Primary modes of travel that occur on Marana's streets include automobiles on roadways and the Interstate 10 freeway. Beyond the interstate, a supporting network of arterial roads is necessary to serve residents throughout the Town and reduce the reliance on the interstate for local trips.

Interstate 10

Interstate 10 is a vital commercial and employment corridor for Marana. The entire I-10 corridor is over 2,400 miles with approximately 700 miles traversing through urban

areas. Currently, the average daily traffic throughout the entire corridor is over 41,000 with a maximum over 300,000. Average daily truck traffic is over 8,000 with a maximum over 55,000. Among the 700 mile urban segments, over 53 percent are currently under heavy congestion. The interstate is currently six lanes wide throughout the Town limits, with plans to be expanded in the future. In the Town, the corridor will ultimately include nine interchanges, seven of which currently exist. Interstate 10 has been designated as one of the five "Corridors of the Future" (COF) by the Federal Highway Administration (FHWA). See Glossary for more information. Interstate 10, which is classified as an urban principal arterial by FHWA, is the southernmost east-west, coast-to-coast interstate highway in the United States. It extends from Santa Monica, California to Jacksonville, Florida.

Transcontinental Interstate 10 serves the southern tier of the United States.

In addition, the segment of Interstate 10 in Marana is part of the greater CANAMEX trade corridor identified by Congress in the 1995 National Highway Systems Designation Act, defining a major trade corridor between Mexico and Canada. Interstate 10 moves more freight between metro Phoenix and metro Tucson than between any other two cities on the highway.

CANAMEX trade corridor

As mentioned in Section 2.5 of the Strategic Vision and Over-riding Principles chapter, Marana's 18 miles of interstate frontage is more than it's length, it's about the connections and opportunities the interstate affords. As Marana grows and we integrate our local economy into an ever expanding metropolitan area, taking our place along the Sun Corridor will require thinking differently than we have in the past.

Roads

The physical inventory of roadways shows that most of the Town's streets can accommodate the current demand placed on them. Marana's highest traffic volumes on surface streets are now concentrated near the commercial areas along Ina Road and Thornydale Road and along major commuter routes, including Cortaro Road, Ina Road and Silverbell Road. Current roadway deficiencies are primarily due to capacity

constraints that can be mitigated through intersection and roadway widening projects, and improvements are now under design or construction for most of these existing areas of concern. As the Town grows, however there may be significant capacity concerns in other locations throughout the Town.

❖ Bicycling and Pedestrian Circulation

Current and proposed bicycle friendly multi-use lanes and shared use paths are depicted on the Bicycle Mobility Map on page 6.1.B. The existing and proposed trail alignments shown in the Parks and Trails Map, located within the Parks and Recreation Element on page 7.2.A, are from the 2010 Town of Marana Parks, Recreation, Trails and Open Space Master Plan. Actual alignments and crossing locations at street intersections will be determined when construction occurs at these locations. For the current official planning status of these trails, the most recent version of the Parks and Recreation District's Trails Master Plan should be consulted. Facilities for bicycling and pedestrians include sidewalks, shared-use pathways, trails, paved shoulders, bicycle lanes, and multi–use-lanes.

Sidewalks

Concrete sidewalk networks are located in some residential neighborhoods and shopping districts. However gaps in the sidewalk networks often result in an unconnected pedestrian pathway system. In areas of high pedestrian activity sidewalks should be wide enough so that pedestrian traffic in opposite directions can pass without having to step into adjoining landscaped areas or the street. Sidewalk ramps are provided whenever a sidewalk intersects a curb so that disabled users are accommodated according to the Americans with Disabilities Act (ADA).

Shared-Use Paths

Marana currently has 9.65 miles of paved shared-use paths. Paved paths have been built along segments of the Santa Cruz River in conjunction with the Gladden Farms Community Park and Tangerine Farms Road improvements. Additional paths have been built in combination with the Crossroads at Silverbell Park. There is also a pair of shared-use paths along the Santa Cruz River from the Coyote Trail Elementary School to the Town's El Rio Park on the west bank and from Cortaro Road to Twin Peaks Road on the east bank.

An inventory of Marana's Parks and Trails as well as the several classifications of paths and trails can be found in the Parks and Recreation Element of this document and in the Parks, Recreation, Trails and Open Space Master Plan.

Trail System

Since the completion of the Parks, Recreation Trails and Open Space Master Plan in 2000, many miles of unpaved trails have been built in Marana. Unpaved trails have been constructed in several developments and park/preserves. Numerous developments have built paved paths and unpaved trails to connect residential areas to the broader trail system and local schools and parks. Several trailhead facilities have been built along or near the Santa Cruz River and within the Dove Mountain development along the Wild Burro Wash, providing access into the Tortolita Mountain Park network of new trails.

The Pima Regional Trails System Master Plan, a comprehensive review and update of the Eastern Pima County Trail System Master Plan which was last updated in 2010, is updating routes, standards, and implementation strategies with a greater focus on the urbanizing areas of the County, including the City of Tucson, Town of Oro Valley and the Town of Marana. The Master Plan for the Pima County Segment of the Juan Bautista de Anza National Historic Trail (2002) provides detailed planning information for the trail corridor through Marana.

Paved shoulders, bicycle lanes, and multi-use lanes

On-street bicycle lanes, paved shoulders and multi-use lanes exist in various areas of the Town on collector and arterial roadways but are generally isolated facilities that do not interconnect. Please see Bicycle Mobility Map on page 6.1.B. These facilities are generally a minimum of five feet wide and in some locations up to eight feet wide. Facilities that are less than 5 feet wide generally accommodate bicycle travel and sometimes pedestrian travel but should not be considered as meeting appropriate design standards for these uses. Paved shoulders or multi-use lanes that exceed eight feet in width sometimes can attract improper use by motorists, leading to conflicts with bicyclists or pedestrians.

Exclusive bicycle lanes that satisfy engineering standards for such lanes are located on Silverbell Road from Twin Peaks Road to Cortaro Road and on short sections of other Town roads. These lanes are of appropriate width, are signed and marked as bicycle lanes, and have appropriate intersection design treatments. Bicycle lanes and paved shoulders are generally not provided on residential streets due to lower traffic volumes and travel speeds found on those streets.

Bicycle and pedestrian movement across the community is restricted by the interstate. Frontage roads allow bicycle movement parallel to the interstate, but without the

benefit of marked bicycle lanes, multi-use lanes or paved shoulders of appropriate width.

❖ **Transit**

The Town of Marana's transit services are provided as part of an integrated regional system providing multiple options for riders across the Tucson metropolitan area and rural population centers throughout Pima County. Expanded town-wide transit services within Marana launched in May 2009 provide connectivity to the regional Sun Tran system, allowing riders to transfer from neighborhood circulators to fixed-route and express bus services extending throughout Pima County. These services include three Sun Shuttle circulator routes providing deviated ADA services, one Sun Shuttle express circulator, three Sun Express routes, and one Sun Tran fixed route.

Sun Shuttle circulators provide connectivity to the regional system in the Continental Ranch/Continental Reserve area, along the Ina Road/Thornydale Road corridor, and throughout northern Marana and rural Pima County. Ridership has increased steadily on those routes since the service was established. The Sun Shuttle express circulator connects riders to Sun Tran/Sun Express service stops, a Park-and-Ride location, and some of Marana's centers of high employment including Arizona Pavilions, the Marana Municipal Complex, Marana Unified Schools District offices, and the Marana Health Center, as well as residential and academic centers along the Cortaro Road corridor and within northern Marana. Sun Express services provide commuter trips from Arizona Pavilions and stops along the Ina Road corridor to high employment business centers in downtown Tucson, the University of Arizona, and Raytheon. Daily ridership on all of these routes is significant.

Bus Facilities

Existing bus facilities within the Town of Marana include benches, bus shelters and transit stations with their associated amenities. Bus facilities in Marana are scattered throughout the Town. There are a total of ten bus stops throughout Marana. Bus shelters are primarily along Ina Road (and Orange Grove Road) at the various bus stops served by both providers. These shelters lack amenities such as shade or water fountains for waiting passengers. The majority of bus stops within the Town are designated with a sign and a bench. Marana has a Park and Ride facility at Arizona Pavilions on Cortaro Road and has an expanded bus stop located at Ina Road in the Lowe's shopping center parking lot. This stop serves the four Sun Tran routes and Pima Rural Transit. It also functions as a transfer point for passengers and has a shelter with a trash receptacle and limited landscaping that provides some shade for waiting passengers.

❖ Aviation Facilities and Services

Aviation facilities within Marana's Planning Area include the Marana Regional Airport, a general aviation facility, and Pinal County Airpark, which services and stores commercial aircraft.

Marana Regional Airport

The Marana Regional Airport, a general aviation facility, maintains two runways and terminal facilities, and serves as a designated reliever airport for Tucson International Airport. Future development around the airport is planned to include industrial, commercial, and hospitality uses that can take advantage of the airport facilities and help establish a major business and employment center around the airport.

The Marana Regional Airport is owned and operated by the Town of Marana. It is located approximately 15 miles northwest of Tucson and is five miles west of Interstate 10 on Avra Valley Road. The Airport is home to many businesses and more than 275 privately-owned general aviation aircraft. The airport supports employment for 250 individuals and creates a revenue stream of economic activity that exceeds $50,000 per day, or $19.4 million per year.

Pinal Airpark

Pinal Air Park, just north of the Pinal/Pima County line, is classified as a general aviation airport and includes the Evergreen Air Center and Arizona Army National Guard operations. The area around Pinal Air Park is being considered as a component of a freight corridor that could consolidate freight movement by air, rail and truck. A major inter-modal facility would allow efficient transfer of freight brought into the area by air, rail, and truck from California and Mexico ports for regional delivery.

❖ Rail

The Union Pacific Railroad Sunset Route parallels I-10 for its entire diagonal length through Marana. The route is planned to be double-tracked, with some sections having already been completed. There are limited possibilities for industry-serving spurs or sidings. The railroad operations significantly impact both the Town surface street system as well as I-10. The only existing grade-separated crossings for the Union Pacific Railroad are located at the interchanges at Orange Grove Road and Twin Peaks Road. Planned improvements to the interchanges at Ina Road, Cortaro

Road, Tangerine Road, Marana Road, and the future Tortolita Parkway will also provide grade-separated railroad crossings.

6.1.5. Current, Proposed, Newly Completed Projects

Recently completed projects include:

- Twin Peaks Interchange (fall 2010)
- Twin Peaks Road (interchange to Tangerine Road) (fall 2010)
- Thornydale Road Widening (2009)
- Silverbell Road Widening (2009)
- Airport Bypass Apron Phase I (2009)
- Rapid Transit Study (2009)
- Paratransit Service Extension (2009)
- Circulator Service Implementation (2009)

Current projects include:

- Tangerine Interchange (under final design)
- Tangerine Road (Design Concept Report)
- Twin Peaks Park-and-Ride
- Bus Pullout Program
- Rapid Transit Study (new)

Future projects include:

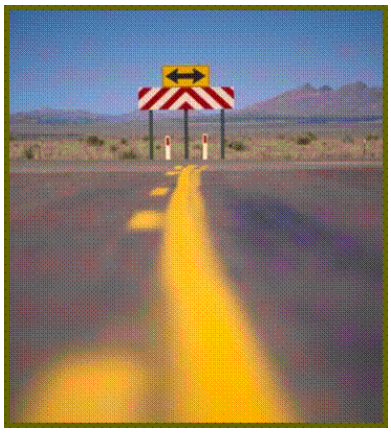
- Ina Road Interchange and railroad grade separation
- Cortaro Road Interchange and railroad grade separation
- Moore Road Interchange and railroad grade separation
- Marana Road Interchange and railroad grade separation
- Tortolita Parkway Interchange and railroad grade separation
- Avra Valley Road Interchange and railroad grade separation
- Marana Road widening/Sandario Road realignment
- Marana Main Street extension
- Tangerine Farms Road extension
- Adonis Road extension
- Clark Farms Boulevard extension
- Avra Valley Road/Lambert Lane extension
- Airport Terminal Building
- Airport Bypass Apron Phase II
- Airport Taxiway addition
- Rehabilitation of Runways, Taxiways, and Aprons
- Airport Land Acquisition

6.1.6. Opportunities and Challenges

Marana's aviation, rail, and trucking services have great growth potential. Expanded flight

and aircraft maintenance operations at the Marana Regional Airport and Pinal Air Park are supported in the Town's land development policies. Freight transfers by rail and truck are also encouraged by maintaining interchange and railroad siding access at appropriate locations.

Bicycling and walking are also critical modes of transportation that should be promoted and designed for in every neighborhood. A growing system of bikeways and pedestrian paths will reduce dependency on the automobile, allow safe access to schools, parks, and shopping, and will provide more environmentally-friendly options for commuting to work. To supplement the planned bikeways shown in the Open Space and Trails element of the General Plan, all arterial and collector roads should be designed and built to safely accommodate bicycling and walking. Collector and arterial roads should be designed with striped multi-use lanes to accommodate cycling. Arterial roads should be designed with sidewalk on one side and a shared-use path on the other. Collector roads should accommodate pedestrians via sidewalks.



Providing transit access for persons with disabilities is a challenge in rural areas and there are limited services available. Handicar and Sun Van provide door-to-door ADA and enhanced ADA transit services to the area south of Tangerine Road, which includes the Continental Ranch area. Marana residents may use the RTA-funded paratransit services coordinated through a Tucson/Pima County contract. Marana residents must be qualified under the Tucson/Pima County joint guidelines prior to receiving service. In the Spring of 2011, new farebox technologies will be introduced into the region. These fareboxes will use smart-cards, allowing riders to transfer within a single system or connect with other transit types and receive the same level of service across the system. The RTA will be funding installation of vehicle-based readers and smart-cards that transfer information with a touch, increasing rider flexibility and decreasing loading times. A rider will be able to board the Sun Shuttle in Marana and transfer to the Sun Tran or Sun Express carrier with the touch of a card. Cards can be purchased for a number of rides, as periodic passes, or with a cash amount loaded through storefront kiosks, the internet, or designated retailers. Cards will be available for purchase for special promotions, as giveaways, or as part of reduced rate services. Fares will be shared between systems using a formula to be determined in the next few months and negotiated through intergovernmental agreements.

While serving as major corridors, I-10, the Union Pacific Railroad, and the Santa Cruz River are also considered major barriers to cross-traffic. This is due to the fact that for efficiency purposes, the roadways that access the interstate interchanges also serve as the routes for crossing the Union Pacific Railroad and the Santa Cruz River. The Central Arizona Project canal is another barrier that will only be crossed with major arterials.

Funding

Funding for future roadway and other transportation improvements requires regional partnerships. Close cooperation with the Arizona Department of Transportation (ADOT), Pima County, the Pima Association of Governments (PAG), the Regional Transportation Authority (RTA), the Central Arizona Association of Governments (CAAG), Pinal County, as well as the neighboring municipalities of Tucson and Oro Valley is critical to building an efficient regional transportation system.

Although funding is not fully identified at the local level in the Master Transportation Plan Update, priority projects should be identified, assigned costs, and scheduled for implementation as financial resources become available. Funding sources include public agencies, local street budgets, land developer contributions and impact fees. One of the most significant steps in planning efficient transportation improvements is the early identification of ultimate right-of-way widths. The characteristics and location of major arterial and collector roadways are generally depicted on the Road Network Map on page 6.1.A. Right-of-way requirements are formally adopted separately from the General Plan under the Town's Major Routes Rights-of-Way Plan.

6.1.7. Issue Identification and Trends

Future population growth, tourism, commercial and industrial development will bring demands for improvements to all modes of transportation. The long-range road network is shown on the Road Network Map on page 6.1.A. The I-10 corridor and the road network must be improved and expanded to accommodate traffic flow throughout the community. The recent Interstate 10 widening to six lanes will serve the community for many years, but Interstate 10 will ultimately need to be widened further. In addition to the recently completed Twin Peaks interchange, new freeway interchanges are proposed at Tortolita Parkway and Moore Road. Currently the Avra Valley Road corridor is extended eastward to ultimately tie to Lambert Lane in order to provide a more balanced transportation network and better access to the industrial/commercial/recreational land uses proposed in the area surrounding the airport. At this location there is a convergence of two wildlife corridors that will need to be look at for all design and development alternatives that can minimize the impacts for future infrastructure. The town will need to work with ADOT, the environmental community, and private developers to investigate alternative designs and financial funding opportunities to address this contradiction. When planning infrastructure in this area, careful consideration will need to given to the placement, design, and need in order to limit impacts to wildlife.

Frontage Road, east of the I-10 will eventually become a 2 way road.

Modifications to existing interchanges will be needed that are coordinated with road widening at key locations. West of I-10 the northward extension of Tangerine Farms Road west of I-10 and the construction and realignment of Marana Road are needed as part of the Town's long-range transportation network. Also needed on the west side of I-10 are improvements to Silverbell Road, Sandario Road, Sanders Road, and Luckett Road. East of I-10 traffic demand will be accommodated with improvements to arterial roads such as Tangerine Road, Ina Road, and Thornydale Road.

Road connections throughout the community will become more important for trips between neighborhoods. More direct routes and routes parallel to I-10 should be established for regular trips to work and shopping so residents do not need to use I-10 for short commutes. Widening of east/west-oriented roadways will also be needed to handle increasing traffic across the community. The proposed I-10 interchanges are essential to establish proper interchange spacing, distribute I-10 loading, and to accommodate future traffic volumes.

Collector and local street construction programs will also be needed in conjunction with continued development. Road improvements will receive careful cost/benefit evaluations to ensure that each improvement will effectively move traffic. ADOT, PAG, and RTA transportation plans will continue to influence development in Marana. Improved I-10 access is needed north of Ina Road, based on population projections for Pima County. ADOT's plan to convert the existing two-way frontage roads to one-way operation, a plan supported by the Town, will be monitored and evaluated to determine the implications for future industrial, office business parks, and tourism uses along the I-10 corridor.
The Town of Marana has many wildlife corridors that have been established through developments. The Draft Habitat Conservation Plan includes two wildlife corridors whose widths correspond with the latest scientific studies. These corridors are shown on the proposed Road Network Map on page 6.1.A. Any expansion of transportation features across these corridors will need to incorporate grade-separated wildlife-friendly crossings that include appropriate wildlife fencing in necessary locations. The Tangerine Road widening and the planned Avra Valley/Lambert Lane extension are two roadways that will need to abide by this policy.

The Marana Town Engineer is authorized to reduce right-of-way widths of 150' roads on Road Network Map 6.1.A to 110' in areas identified as "Environmentally Sensitive Lands (per draft Habitat Conservation Plan)" when the Town Engineer determines, based on best available scientific information, that the reduced widths is likely to reduce wildlife mortality. (*Revised per Resolution 2015.037).*

As Marana grows, there will be need for improved transit; working with regional providers of transit to take advantage of opportunities to expand services and increase overall regional connectivity options will be necessary. Marana should continue to negotiate for expanded express routes to offer two-way service both morning and evening.

The State of Arizona is studying the feasibility of providing a rail commuter system to link Tucson with Phoenix and other communities along the I-10 corridor. New construction and expansions of I-10 interchanges should be planned to accommodate the potential for transit stations, bus connections, park and ride lots, and other development. Master-planned communities and other large-scale developments should consider the possibilities and advantages of a rail link.

The State of Arizona is also studying the need for a Tucson-Phoenix bypass highway. One route for a bypass highway under consideration would pass north of Marana and likely north of Marana's planning boundary. Another route under consideration would pass west of Marana through the Avra Valley area. Should such a bypass highway project proceed beyond the study stage, Marana will need to evaluate the impact of a bypass on its transportation system.

6.1.8. Strategic Direction

Marana will continue with its efforts to develop a transportation system that is safe, convenient, multi-modal, and accessible to all users. All residents and visitors to the Town of Marana should have a safe and efficient transportation network that provides access to housing, work centers, shopping services, schools and recreation by way of automobile, transit, cycling or walking. Marana's transportation network will be mindful of its rich environment and will incorporate the necessity of such improvements along with site-specific wildlife corridors and regional wildlife movement into the location and its design.

The streets of our town play an important part of the livability of our community. They are for everyone, young or old, motorist or bicyclist, walker or wheelchair user, bus rider or shopkeeper. The Town's multi-modal transportation policy should take into account these users to the extent possible.

6.1.9. Goals, Policies, and Actions

As the Town grows in population and expands in land area, its transportation and circulation needs must keep pace. Attractive, safe and efficient roads should be provided in the Town's planned circulation system. Future expansions of transit services, along with other alternatives for commuting, are critical to that circulation system. Planning for circulation in Marana is guided by the goals, policies, and actions outlined below, as well as by more detailed plans such as the PAG Master Transportation Plan and the Marana Master Transportation Plan Update. Goals are broad statements that provide the foundation and vision for Marana's future circulation systems. Policies encourage sensible, planned decisions for planning and implementing circulation improvements throughout the community. Actions are specific tasks to implement each policy. A

summary table of Circulation Goals, Policies, Actions, Responsible Party, and Implementation time frame is included in the Implementation Plan.

Goal 1: Develop an efficient and effective long-term circulation system to move people and goods.

Marana has many opportunities to direct and manage its future development. A major component of land development is the transportation and circulation system. While roads are still the cornerstone for moving people and goods, road building is now part of a larger program designed to meet mobility needs in an efficient and cost-effective manner. Town residents should be able to choose from a number of transportation options for shopping, commuting, and recreational trips, including roads, mass transit, shared-use paths, sidewalks, and trails. Town businesses should have the opportunity to select from truck, rail, or aviation transportation options to move goods and provide services.

The Major Routes Right-of-Way Plan identifies future right-of-way acquisitions and dedications for these essential roads. Phasing and implementing the Major Routes Right-of-Way Plan in accordance with adopted Capital Improvement Program priorities is a key part of the Town's overall growth management program.

a. Policy: Implement a total system with multi-modal improvements to reduce vehicle use and miles traveled.

1. Action: Encourage mixed land uses that combine residential, commercial and employment with access to transit, bicycle, and pedestrian improvements.
2. Action: Identify, phase, and prioritize roadway improvements through the Capital Improvements Program (CIP).
3. Action: Update and maintain a multi-modal circulation plan to include automobiles, public transit, bicycles, and pedestrians.
4. Action: Develop a roadway inventory as part of the Road Network Map(page 6.1.A) that documents existing conditions and identifies future pedestrian/bike upgrades and future maintenance needs with projected costs and start dates.
5. Action: Update land-use demand projections to plan for adequate roads, transit, and pedestrian needs.
6. Action: Update projections and costs for roadway widenings, extensions, intersection improvements and transit system needs in the Master Transportation Plan Update.
7. Action: Develop road cross-sections, level of service, and paving standards to accommodate vehicles, bicycles, and pedestrians.
8. Action: Review and consider revising pavement widths for local streets to address issues of travel speeds, impervious surface, pedestrian safety, and aesthetics.

9. Action: Develop criteria for access management to ensure efficient and safe access onto arterial and collector roadways.
10. Action: Identify future right-of-way needs and develop an acquisition plan.
11. Action: Develop standards and requirements for future ride-share lot and bus stop locations.

b. Policy: Coordinate all improvements for proper phasing of approvals, dedications, and construction.

1. Action: Acquire identified rights-of-way through exactions and development agreements. Require that conveyance to the Town of all required rights-of-way occur in a timely manner.
2. Action: Design and build new and expanded transit facilities as needed.
3. Action: Continue requiring traffic reports for developments such as master-planned communities, rezonings, specific plans, plats, and development plans.
4. Action: Require that new development mitigate impacts on existing roads.
5. Action: Require that roads built by developers be constructed to Town standards. Roadways shall be designed so that they may be upgraded to their ultimate configurations without requiring major reconstruction of the original roadway infrastructure.

Goal 2: Establish full-service circulation systems.

The future transportation vision of Marana embraces much more than building roads, it also promotes the coordination of transportation decisions, strategies and investments with land use goals. It is intended to be comprehensive. It should integrate transportation modes such as private cars, trucks, bicycles, pedestrians, railroads, and airplanes. This circulation network provides opportunities for driving trips, delivery of goods, and commuter/recreational walking and bicycling.

This goal calls for a comprehensive, multi-modal circulation system that provides for reduced travel and vehicle use, travel convenience, reduced transportation costs, greater mobility for all residents, pedestrian recreational opportunities, and improved air quality. This goal provides the impetus for a wide range of in-town circulation options.

a. Policy: Seek opportunities for alternative modes of transportation.

1. Action: Develop transit service within the Town, promote carpooling, and develop park and ride lots.

2. Action: Coordinate transit service schedules, rates and services with neighboring jurisdictions and regional service providers.
3. Action: Work with ADOT and other jurisdictions in support of feasibility studies for a commuter rail system between Tucson and Phoenix.
4. Action: Promote employer incentives to provide programs for alternative modes of transportation.
5. Action: Promote bicycling and walking as viable alternatives for commuting to work.
6. Action: Encourage participation and provide incentives for ride-sharing, car pooling, and van pool services.
7. Action: In all development projects, require pedestrian trails and linkages to adjacent existing and proposed trails and along wash areas.
8. Action: Implement improvements for the historic Juan Bautista de Anza Trail.
9. Action: Consider pedestrian underpasses at major intersections or crossing points.
10. Action: Promote development of paseos with integral trailheads and connections to the community trails system.
11. Action: Support aviation expansion by continuing the development and implementation of the Marana Regional Airport Master Plan.
12. Action: Develop standards and requirements for integrating bus pullouts into roadway design.
13. Action: Develop standards and requirements for park-and-ride lots and bus stop locations.
14. Action: Include park-and-ride facilities in all public facilities and activity centers to encourage use of transit.
15. Action: Work with regional partners to develop and implement marketing and community outreach programs to promote regional transit services.
16. Action: Continue to work with regional partners to implement the PAG/RTA Rapid Transit Plan.
17. Action: Work with regional providers to implement new transit services in areas that are not served or under-served.
18. Action: Design services and seek funding to pride accessible transit options for all residents.

b. Policy: Identify the full range of funding sources for implementing transportation projects.

1. Action: Coordinate funding to take advantage of regional transportation efforts with other jurisdictions.
2. Action: Identify, collect, and utilize development impact fees for regional transportation improvements.

3. Action: Establish Improvement Districts as a funding mechanism for infrastructure improvements.
4. Action: Identify funding sources for all types of projects.

c. Policy: Use the local transportation network to enhance quality of life.

1. Action: Implement parks, trails and open space goals per the Parks, Recreation, Trails and Open Space Master Plan.
2. Action: Develop paseos containing shared-use paths and implement trail design guidelines.

d. Policy: Develop roadways that are sensitive to the natural environment.

1. Action: Draft and update new ordinances to minimize environmental impacts from road construction.
2. Action: Develop and implement environmentally sensitive roadway standards and designate areas of the Town where such standards will be used.
3. Action: Ensure that roadway corridors provide for wildlife crossings that address wildlife needs as recommended by the Marana Draft Habitat Conservation Plan (HCP)
4. Action: Work with the Regional Transit Authority to utilize its environmental element to plan and fund wildlife crossings associated with Capital Improvement Projects.
5. Action: Establish tree planting programs for public and private streetscapes.
6. Action: Incorporate hardscape treatments and xeriscaping in all road projects.
7. Action: As an alternative to constructing new infrastructure work to discourage and relocate the roadways that would be constructed through regional wildlife corridors.

Goal 3: Promote and develop Marana as a bicycle-friendly community.

Marana plays a large role in providing for bicycle and transportation modes in Pima County. The Eastern Pima County Region, which includes Marana, received the "Gold" Bicycle Friendly Community designation from the League of American Bicyclists in 2006 and there are efforts underway to attain a platinum designation. Improving upon these existing conditions while the Town continues to develop is important in making cycling an even greater viable mode of transportation throughout the Town and region. This goal promotes Marana as a place for safe cycling and for improving the health of its residents. The Town should also encourage modes of transportation that do not pollute and also reduce the total

vehicle miles driven. This can be accomplished through education and local and regional planning initiatives.

a. Policy: Plan for bicycle transportation to create an interconnected bikeways network within the Town.

    1. Action: Review the Land Development Code to consider requirements for bikeways, parking facilities, and end-of-trip facilities such as showers and lockers.
    2. Action: Create and distribute a local bicycle route map that shows in-town connections as well as regional connections.
    3. Action: As part of the bicycle plan, identify gaps in the bikeways network and continue to implement improvements such as bicycle lanes, multi-use lanes, paved shoulders and shared-use paths.
    4. Action: Ensure that road cross sections for arterial roadways include multi-use lanes (or paved shoulders as appropriate) and a single shared-use path which can take the place of a sidewalk for side with the shared-use path.
    5. Action: Ensure that road cross sections for collector roadways include multi-use lanes (or paved shoulders as appropriate).
    6. Action: Develop and implement a uniform bicycle signage and striping program to enhance safety through consistency.
    7. Action: Identify federal, state, county, regional, local and private funding sources to improve bike circulation.
    8. Action: Review development plans for access to schools in support of the Safe Routes to School initiative.
    9. Action: Identify corridors and improvements that facilitate bicycle access to schools and expand the Safe Routes to School initiative to reach every school within the Town.

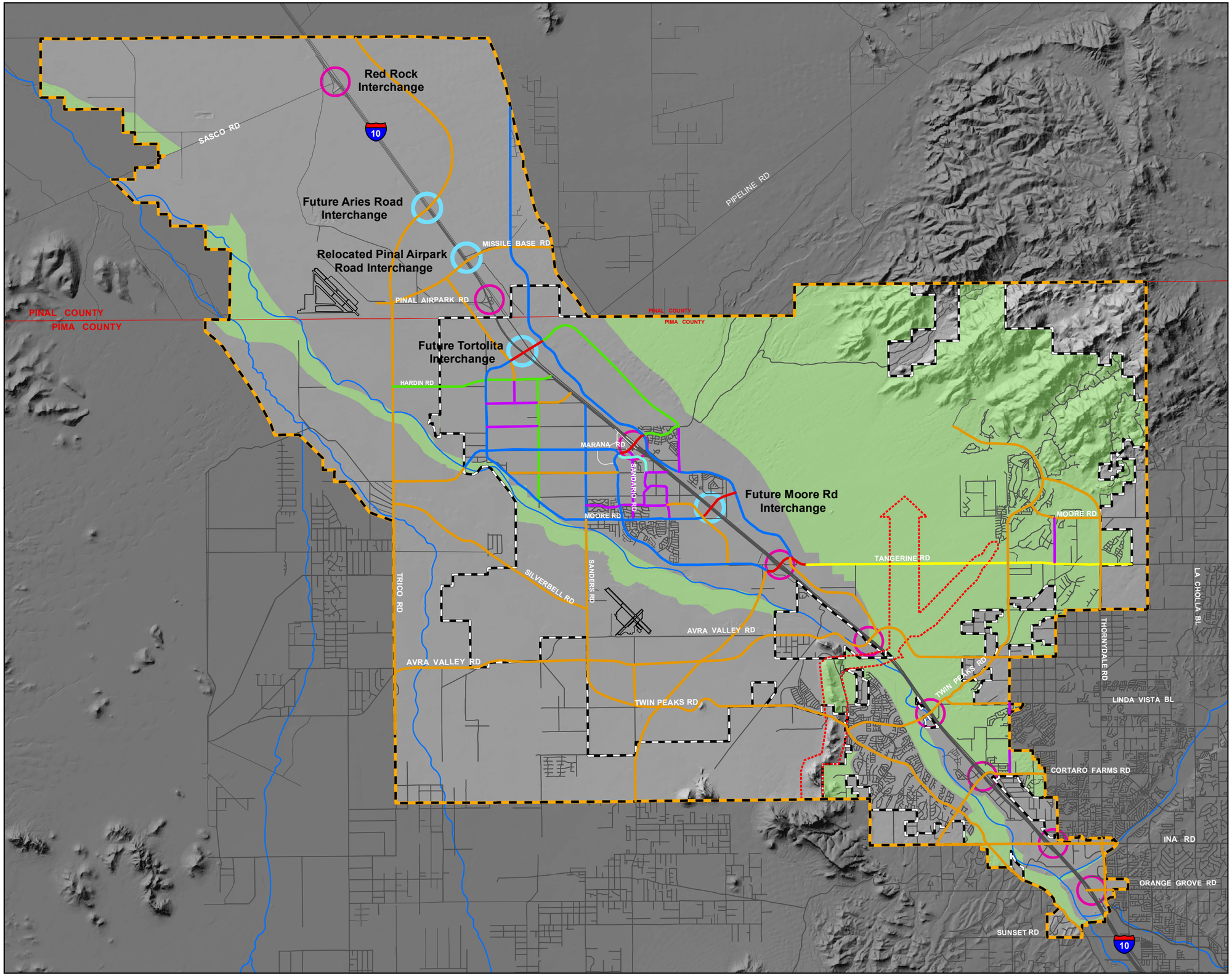
b. Policy: Coordinate with Pima Association of Governments (PAG), Regional Transportation Authority (RTA), Pima County, Pinal County, Oro Valley, and the City of Tucson for regional bike improvements.

    1. Action: Assign a staff member to participate in Town and regional bicycle planning and serve on committees such as the Platinum Challenge Task Force of PAG and the Tucson-Pima County Bicycle Advisory Committee (T-PCBAC).
    2. Action: Recruit a Town citizen as a representative to the T-PCBAC.
    3. Action: Create bikeways that increase connectivity to regional bikeways in neighboring jurisdictions.

c. Policy: Make bicycling safer within the Town.

    1. Action: Review existing state and federal regulations and standards and update local ordinances for bicycle safety.

2. Action: Enforce existing motor and bicycle laws for bicycle safety, such as red light running, wrong-way riding, speeding, yielding to bikes, and riding with lights.
3. Action: Include multi-use lanes in the in the design of new freeway interchange cross streets.
4. Action: Create a program to disseminate bicycle safety information in the Town to both children and adults.



MARANA

2010 General Plan

6.1.A

Road Network*

Proposed Major Routes

Road Right of Way, Feet

- 80
- 90
- 150**
- 250
- 190 (includes buffer)
- 250 (includes buffer)
- *250 +*

* Revised per Resolution 2015-037

** Right of way may be reduced in Environmentally Sensitive Areas

I-10 Interchanges

- Existing
- Proposed

- Existing Roads
- Environmentally Sensitive Area
- Planning Area
- Proposed Wildlife Corridor
- Marana Town Limits
- Pima/Pinal County Boundary

N W E S

0 1 2 3 4 5

Miles

Data Disclaimer: The Town of Marana provides this map information "As Is" at the request of the user with the understanding that it is not guaranteed to be accurate, correct or complete and conclusions drawn from such information are the responsibility of the user. In no event shall The Town of Marana become liable to users of these data, or any other party, for any loss or direct, indirect, special, incidental, or consequential damages, including but not limited to time, money, or goodwill, arising from the use or modification of the data.

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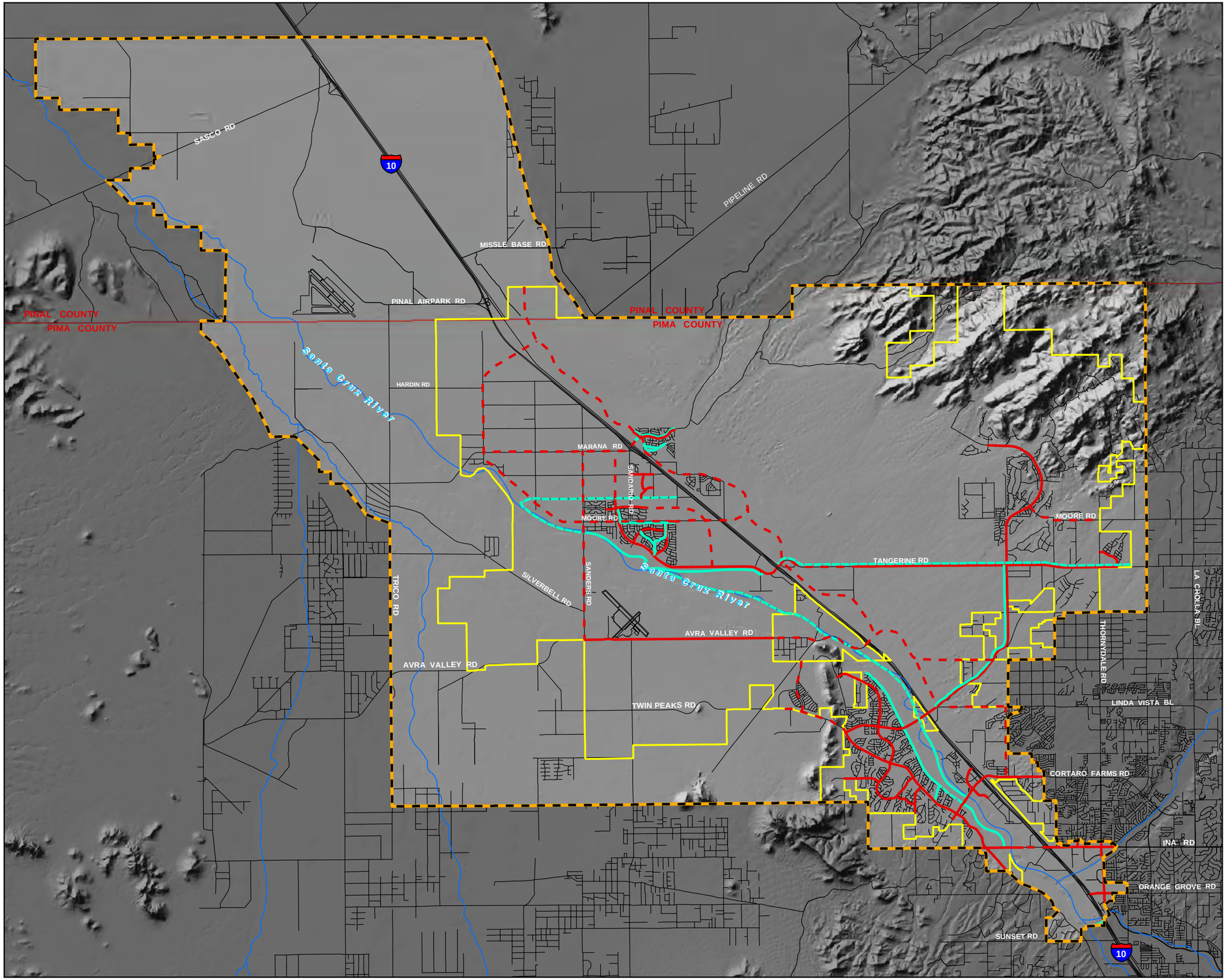

MARANA

2010 General Plan

6.1.B Bicycle Mobility Plan

- Existing Roadway with Striped Multi-use Lane
- Future Multi-use Lanes
- Existing Shared-use Path
- Future Shared-use Path
- Planning Area
- Marana Town Limits
- Pima/Pinal County Boundary

N
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Miles

Data Disclaimer: The Town of Marana provides this map information "As Is" at the request of the user with the understanding that it is not guaranteed to be accurate, correct or complete and conclusions drawn from such information are the responsibility of the user. In no event shall The Town of Marana become liable to users of these data, or any other party, for any loss or direct, indirect, special, incidental, or consequential damages, including but not limited to time, money, or goodwill, arising from the use or modification of the data.

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6.2.1. Introduction

The Housing Element has been developed as a guide to facilitate sustainable growth and create a livable community with vibrant neighborhoods that promote diversity, advance inclusivity, and celebrate the hometown feel. The elements of this plan are intended to foster quality planning and development, encourage the availability of diverse housing choices, and promote energy efficiency and links to multimodal transportation to further the economic stability of the region.

6.2.2. Background

Early Housing Development

The Town of Marana's earliest housing was built to support agriculture, mining, and military training facilities that dominated the landscape in the shadow of World War II. Housing developed in two basic patterns: single family houses built on large tracts of land that exemplified the agrarian lifestyle; and scattered subdivisions with smaller homes occupied by farm workers, miners, merchants, and families looking for a rural lifestyle.

A series of floods and the expansion of Interstate 10 changed the growth patterns over time and destroyed much of the early development including the original town center and schools. Today, Marana's remaining older neighborhoods are dominated by simple block construction and manufactured housing with limited infrastructure and amenities.

An expansion of housing occurred with the mitigation of flood hazards along the Santa Cruz River and large land masses were annexed into the Town. The number and types of housing grew dramatically between 1985 and 2000. Planned communities with large numbers of houses characterized by similar architectural features, streetscapes, and landscaping elements soon dominated the Town's housing inventory.

Housing Boom

Between 2000 and 2007 Marana's population and housing inventory nearly tripled creating an imbalance in infrastructure and amenities between old and new residential developments. The housing constructed during this period is almost exclusively single family on mass graded engineered lots in master-planned subdivisions. Small pockets of high-end custom homes clustered along the northeastern jurisdictional boundaries were developed, along with a limited number of scattered multiple-family, manufactured, and designated affordable units. This growth pattern, in part, was spurred on by the "drive until you can afford it" trend that dominated the Arizona housing industry during the period.

Housing Affordability

Market factors that established the cost of new housing developments placed ownership beyond the reach of families at or below 120 percent of the Median Household Income. Rapidly escalating new and resale home prices precluded a large segment of the community from attaining housing and created a situation where a growing number of individuals employed by Marana businesses were forced to reside outside the Town limits.

6.2.3. Desired Outcomes

The Town desires to create a community that offers its residents a wide-variety of housing opportunities through promotion of responsible land use, effective and efficient transportation, economic growth, resource and open space management, and enhancement of the character of the community. This can be accomplished by offering several types of housing options in locations slotted for growth, near employment, recreation, and transportation.

6.2.4. Existing Conditions

Although Marana was traditionally known for its rural lifestyle, it has evolved into bedroom community serving the greater Tucson metropolitan area. The Town has a combination of older, well established neighborhoods and newer master planned developments. Master planned developments are the predominant development type and create suburban residential patterns of single-family detached homes with commercial developments located at key intersections. Multi-family housing options including apartments are condominiums are limited to a few areas of the Town, mostly adjacent to commercial and governmental centers.

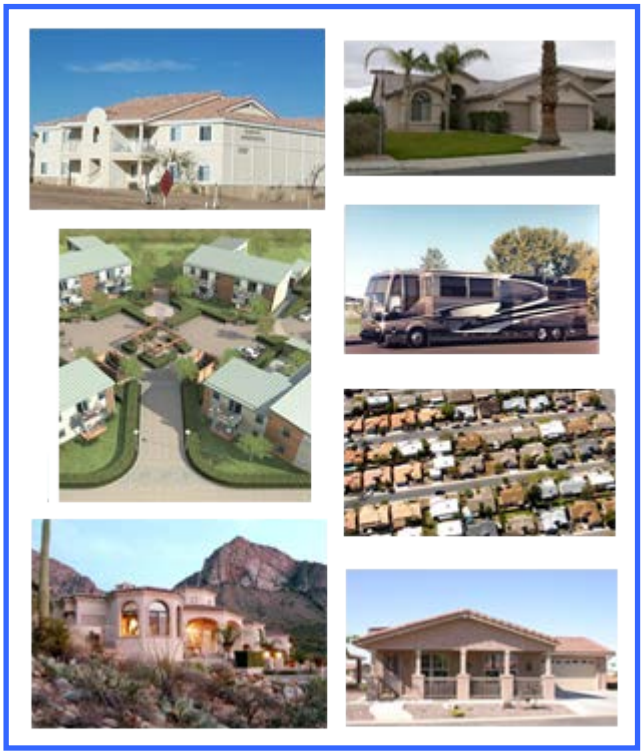
Neighborhoods and Planned Communities

Housing in Marana has developed in three community clusters bisected by Interstate 10 and the Union Pacific Railroad. These areas include the southern, northeastern, and northwestern neighborhoods and can be seen in the Growth Areas Map on page 5.1.E.

Residential developments in the southern area include Continental Ranch and Continental Reserve planned communities located west of Interstate 10 along the Cortaro and Silverbell Road corridors. These developments experienced the majority of their growth period prior to 2000, with commercial developments along the corridors and infill housing projects continuing to date as the area matures. Housing in the area is almost exclusively single-family medium to large lot homes with a cluster of multi-family housing units along the major roadways.

Housing in the northeast is concentrated in the Dove Mountain community with single family residences varying from smaller lots with mountain or golf course views to larger lots with custom homes. Other northeastern developments include Saguaro Ranch, Sky Ranch with clustered single family residences and Tangerine Crossing, a newly developing subdivision east of Thornydale Road.

Northwestern Marana's housing varies widely from ranch homes on acreage, older subdivisions with detached single-family homes, and manufactured housing to new subdivisions including Gladden Farms, a large-scale planned community nestled between the Santa Cruz River, farmlands, and some of Marana's oldest neighborhoods. The Town's only designated affordable units are located in the area and consist of approximately 80 multi-family rent units and less than a dozen owner-occupied homes subsidized under first-time homebuyer programs.



Newer subdivisions throughout the Town struggle to stay solvent as home sales remain low, waiting for resurgence in demand for single-family homes. Several large-scale planned communities are entitled and awaiting development, others are active or in the planning stage, and a few abandoned subdivisions of fully entitled developable lots lay fallow and partially built.

Only 26 percent of platted and proposed lots have housing constructed to date leaving more than 36,000 undeveloped residential lots entitled in existing subdivisions. These projects, once completed, will more than triple the number of housing units already existing in the Town. All of these lots have been designated for single-family detached units.

Multi-Family Housing Developments

Multi-family housing has not developed at the same rate as single-family units in Marana. The nation-wide push for single-family ownership has overshadowed the need for rental homes, driving the market away from the development of multi-family dwellings, shifting the balance of housing type to an abundance of single family housing. Only 1,000 units of multi-family housing exist within Marana's incorporated boundary.

Affordable Housing

The Town of Marana's supply of affordable housing is extremely limited. Today's inventory of designated affordable units, created during the housing boom, is limited to four owner-occupied single family units and 80 low-income rental units. In the five Colonias some safe, decent affordable housing exists; however, aging housing stock, redevelopment, and deteriorating infrastructure has eliminated housing units within them leaving a net loss.

The Town's shortage of affordable owner-occupied and attainable rental housing is exacerbated as large numbers of families are displaced by the current economic downturn and increased foreclosure rate.

6.2.5. Current, Proposed or Newly Completed Projects

Although single-family homes are being built in every area with a wide-range of price points, square footage and lot size, a variety of new housing developments are underway that will offer Marana residents more choices in housing type and tenure. The Legacy Apartments, the first multi-family development in Marana's northeast is under construction, Honea-Heights III, a mixed-income housing development in northwest Marana will include lots dedicated to affordable housing, Sydney Place, also located in the Honea Heights neighborhood, provides four affordable housing units; Mandarina, the Town's first pedestrian- and transit-oriented master planned community, will integrate a mix of land uses that will truly enable residents the opportunity to live, work, and play. These projects exemplify some of the goals established in this element. The following are highlights of the projects.

The Legacy Apartments at Dove Mountain, is a 168 unit multi-family apartment complex in the northeast corner of Tangerine Road and Dove Mountain Boulevard. The development will feature a mix of one, two and three bedroom units within two story buildings, a club house, pools, and other amenities.

Several entitled projects address current housing shortfalls within the Town. The Honea Heights III Specific Plan establishes comprehensive guidance and regulations for the Town's first housing development including sustainable building technologies, affordable housing requirements, and transit oriented considerations. The Honea Heights III project is designed to provide an innovative mixed-income housing model; preserve the unique characteristics of the native desert landscape, and promote energy efficient and environmentally responsive building. It is anticipated that infrastructure development will be underway in 2011.

In addition, Sydney Place, a small subdivision located on the east side of Whitney Lane in north Marana, approximately a quarter mile south of Moore Road in the Honea Heights Neighborhood will contain four affordable houses for low- to moderate-

income families. This project will be built in partnership with Habitat for Humanity and the Town helping to fill the affordability gap in the area.

Mandarina, a pedestrian- and transit-orientation master planned community will be located on the east side of Interstate 10 north of Tangerine Road. This planned community will occupy approximately 342 acres with mixed land uses that integrate street front retail, services, entertainment, hospitality, office, upper floor residential as well as a variety of single- and multi-family residential uses. The development will offer employment and retail opportunities in conjunction with housing and serve as a link between Marana's northwestern neighborhoods and the Dove Mountain area.

6.2.6. Opportunities and Challenges

Several factors influencing housing markets throughout the western United States have had a profound effect on the way planning and development are being approached in Marana. These factors include: (a) rapid deflation in the value of single-family residential units; (b) shortages in affordable rental housing; (c) unsustainable growth patterns; (d) unsustainable building practices.

This section will examine areas wherein current challenges are leading to innovation and an opportunity to examine growth patterns and the policy changes necessary to achieve a new vision for the development of housing in Marana.

a. Challenge - Rapid deflation in the value of single-family residential units

In late 2007 Arizona and the nation began experiencing a drastic decline in housing production and values with a resulting sharp increase in foreclosures. With the state's growth industries of housing and commercial development serving as its primary economic driver, the unexpected decrease in the market has led to rapid increases in unemployment further accelerating the foreclosure crisis and pushing home values even lower.

The primary factors contributing to foreclosures are loss of employment, high-cost and high-leverage financing by buyers, high-cost and high-leverage refinancing by owners, over-building, and over-valuation. With a large volume of short sales and expired listings, over-valuation is considered the primary factor, yet all of the other factors contribute to the larger picture.

Opportunity - Rethinking practices to create solutions

The slowdown in housing development offers an opportunity to evaluate the factors that caused the current situation and implement practices as we move into the future. The Town is committed to thoughtful planning that enables development of housing that offer residents a wide choice of diverse owner-occupied and rental

housing constructed using sustainable principals, easy access to multi-model transportation, and conscious consideration on the impact on the Sonoran Desert landscape.

Planning is underway to ensure that housing options include multi-use and mixed-income developments; small and large lot options with areas reserved to help preserve the agrarian lifestyle; and neighborhood clusters where employment and retail centers transition smoothly with residences, connected by effective and efficient multi-model forms of transportation.

b. Challenge - Shortages in rental units

Although investor speculation during the housing run-up created a rental market, higher price points and the distances between single-family neighborhoods and major employment centers limited options for households in the low- to moderate income categories. The Town's limited multi-family housing inventory has pushed rental consumers into the single-family market and alienated a segment of the market. The higher price points and the combination of transportation and housing costs forced working families and young professionals out of Marana's rental market.

Opportunity - Development of rental housing for infill and mixed-use projects

While much of the Town's focus has been on increasing homeownership, renters are an equally important segment of the housing market. The need for rental units offers an opportunity for infill and mixed-use development in key areas with existing multi-modal transportation.

From a community standpoint, renting provides the opportunity for households to learn more about a neighborhood or community before making a homeownership investment and provides for mobility among the workforce. From a household perspective, renting is chosen over homeownership for a variety of reasons including:

Renting may be less expensive than owning, especially during the first five years: (1) rental units are maintained and repaired by their owners, so unplanned and sometimes-costly repairs are not the renter's responsibility; (2) less time spent on maintenance and repairs equals more free time; (3) renting carries less financial risk, especially in volatile markets.

c. Challenge – Unsustainable Growth Patterns

One of the challenges facing Marana is the fragmented growth pattern that evolved as the Town approved a series of annexations. Providing connectivity between residential neighborhoods and commercial centers and providing easy access to the goods and essential services needed to support housing development is difficult. Long commutes for employment and multiple car trips to school, recreation and commerce

are having unintended consequences on the cost of housing and the economic stability of the community.

Opportunity - Steps toward providing multimodal transportation opportunities

Through careful planning that encourages the implementation of multimodal transportation options for residents and creates streetscapes and access points that encourage walking and bicycle-use, the Town can strengthen its economic base.

The introduction of express busses and transit circulators providing daily service for Marana residents to connect within the community and throughout the region provides a critical link between housing and employment, lowers monthly expenses and in turn allows for more discretionary spending and stimulating the local economy.

In addition, transit and multi-modal transportation accessibility positively impact the health and well-being of residents and provide long-term cost savings, decreased vehicle emissions, and increased overall health.

By adopting an aggressive policy to market the benefits of public transit and promote mixed-use development with restaurants and shopping in neighborhood clusters, the Town can provide residents an alternative to driving. This move would support planning efforts that direct future growth in a manner that promotes pedestrian-oriented, compact, mixed use development in areas with access to inter-city and regional transit.

d. Challenge – Unsustainable Building Practices

Housing sustainability extends beyond the relationship of housing costs to income. Just as transportation costs impact housing affordability based on location, utilities directly impact housing affordability as well. Energy efficiency and sustainable building are essential for long-term viability of the community. Long-term analysis shows that the more poorly a structure is built, the more costly it will be to operate in the long run. Improved energy efficiency and sustainable design is an important strategy in improving housing affordability.

Opportunity - Weighing options for the implementation of sustainable practices

The quest for Leadership in Energy and Environmental Design (LEED) certification is inspiring some green building in commercial, civic, and limited custom residential development, but the projects serve as exemplars rather than an indication of full market acceptance of the concepts.

The Town has been investigating green building and completed a Green Building whitepaper, in May of 2009, on green building trends in

sustainable development. The community is weighing options available for implementing planning requirements and building code changes that align with the Town's strategic direction.

6.2.7. Issue Identification and Trends

National housing trends influence the cost and development of housing in Marana. These trends include shifts in family demographics, financial instability, and green building practices.

Shift in Family Demographics

Throughout the region, more than one third (36 percent) of households are headed by a person age 55 or older. Research shows that these older householders are less likely to participate in the workforce, are more likely to own than rent, more likely to have accumulated wealth and pay cash or make a significant down payment when purchasing housing, and are more likely to purchase second or seasonal housing homes. In Marana, older householders are primarily attracted to planned communities where community amenities are geared towards leisure and retirement activities.

> According to the United States Green Building Council (USGBC) statistics, building structures are responsible for all of the following:
>
> - ✓ 39% of US carbon dioxide (CO_2) emissions
> - ✓ 70% of US electricity consumption
> - ✓ 15 trillion gallons of water

Financial Instability

Statewide, all of Arizona has been designated by Fannie Mae and Freddie Mac as a declining market, making it near impossible to acquire mortgage insurance for conventional financing. The same financing issues plaguing individuals trying to take advantage of the turn in the market to get into a home are limiting the ability of developers and builders to move forward with projects. Construction financing for both market-rate and affordable housing units is nearly unobtainable as housing prices continue to decline in month over month comparisons with 2009.

Studies conducted by the University of Arizona's Drachman Institute have shown that in Pima County the high housing costs, combined with increasing transportation costs spurred on by the distances between housing and employment centers, has effected not only individual household savings and the potential for wealth creation, but also the overall economic well being of the region. Because both housing and transportation costs vary greatly by location, and often in conflicting directions, considering the two costs jointly is key in measuring and understanding the sustainability of a location. Transportation costs can range from 15 percent of household income in efficient locations to over 28 percent in inefficient locations illustrating the need for multi-modal options throughout the community.

Green Building Practices

Green building is a broad term used to describe the design and construction of sustainable and environmentally conscious buildings. The driving force behind this is to lower our negative impact on the environment and, at the same time, make the buildings we live and work in safer and healthier for everyone. The U.S. Green Building Council is the nation's foremost coalition of building industry leaders. With its well-known LEED Green Building Rating System™, the nonprofit USGBC is helping to shift the vast U.S. building industry into thinking sustainability in how buildings are designed, built and operated. Even though there is still controversy over the cause and effects of greenhouse gases on the environment, buildings are responsible for consuming 70 percent of U.S. electricity and 15 trillion gallons of water annually, very important for those living in urban areas experiencing continuous growth. With our population expansion, aging water and electrical infrastructure, designing and constructing green and sustainable buildings makes practical sense from a utilitarian perspective.

One argument against energy efficiency improvements and sustainable building has been the high material and labor costs. However as demand has increased, costs have decreased putting many improvements within the reach of households and builders alike. In fact, many energy efficiency improvements have zero to very low cost. According to studies conducted in Pima County, LEED silver certification costs approximately two percent more than standard construction and can result in significantly lower utility bills and community impacts.

6.2.8. Strategic Direction

Providing a variety of residential options that balance preservation of existing housing stock and development of new units to meet the changing needs of Marana's population is a critical element in promoting sustainable land use, effective and efficient transportation, economic growth, resource and open space management, and enhancing the character of the community. By offering a variety housing utilizing sustainable practices, and locating housing in growth areas near employment, recreation, and transportation the Town is striving to create a community that offers a wide-variety of opportunities for its residents.

6.2.9. Goal, Policies, and Actions

The goals, polices, and actions described in the plan promote housing diversity with a balance of single- and multi-family, affordable, and special needs housing to provide

options for all segments of the community. This includes establishing a cohesive community that balances housing needs, sustainable building practices and multi-modal transportation.

Goal 1: Provide a sufficient supply of safe appropriate housing to meet the needs of current and future Marana residents.

a. Policy: Promote high quality residential development.

1. Action: Evaluate the Residential Design Standards for integration of techniques designed to promote housing quality and diversity by type.
2. Action: Continue to support redevelopment and rehabilitation of dilapidated and vacant housing stock.

b. Policy: Provide diverse housing products/choices.

1. Action: Continue to promote development of master planned communities with a variety of residential densities and appropriate employment centers.
2. Action: Encourage development of multi-family housing to increase diversity and promote economic stability.
3. Action: Encourage mixed-use projects to increase the housing supply while promoting diversity and neighborhood vitality.
4. Action: Consider reasonable incentives that encourage the development of diverse housing types.
5. Action: When the opportunity presents itself integrate the design of developments with the conservation measures identified in the Draft HCP.

c. Policy: Encourage the development of affordable housing options.

1. Action: Encourage the development of public-private ventures developing quality workforce housing with local, state and federal funds.
2. Action: Leverage available federal, state, regional and local resources and programs to encourage community partners to develop affordable housing.
3. Action: Promote incentives for the development of quality low- and moderate-income housing in designated Colonias and designated infill districts.
4. Action: Consider programs that incentivize a percentage of affordable housing within large-scale and/or mixed-use projects.
5. Action: Partner with community- and faith-based agencies to provide housing options for McKinney Vento (Homeless Youth) populations.

d. Policy: Provide for adequate housing opportunities for seniors and special needs groups.

1. Action: Identify and analyze the housing needs of seniors and special needs populations.

2. Action: Develop incentives and leverage resources to encourage the development of housing targeted to seniors and special needs populations.
3. Action: Leverage available federal, state, regional and local resources and programs to encourage community partners to develop housing for seniors and special needs populations.

e. Policy: The Town shall work with appropriate federal, state and local housing providers to ensure that fair housing laws are enforced.

1. Action: Support programs and agencies that seek to eliminate housing discrimination.

Goal 2: Provide transit adjacent and transit oriented housing.

a. Policy: Consider housing that promotes connectivity between residents and multi-model transportation.
b. Policy: Consider incentives to encourage the development of housing within major transportation corridors and adjacent to transit services.

Goal 3: Incorporate green building practices into the design and construction of new and existing housing stock.

a. Policy: Develop codes that address green building design and performance

1. Action: Continue to review, comment and develop model building codes developed by the International Code Committee (ICC) that address sustainable construction and adopt those codes most appropriate for this area.
2. Action: Partner with local jurisdictions and organizations to develop additional codes or amendments most suitable for this area.
3. Action: Create programs that educate homeowners and developers on green building practices.
4. Action: Develop workshops and/or classes that educate the community about residential green codes and sustainable building practices and incorporating them into new housing construction, additions and/or house maintenance.
5. Action: Demonstrate the economic and public relation advantages of putting green building practices into practice.

b. Policy: Create Incentives that make green building practices more feasible to developers and homeowners.

1. Action: Along with the education component, create incentives such as reduced development fees or expedited reviews to create the environment that green building is feasible both technically and economically.

6.3.1. Introduction

The Public Facilities element of the General Plan details the Town's commitment to provide facilities and services required to meet the growing and changing needs of Marana residents, employers, and visitors. The facilities and services described in this element includes; roads, water, sewer, drainage, local utilities, Town government, schools, parks, police, fire and emergency services.

6.3.2. Desired Outcome

The availability of facilities and services helps define the template for meeting the demands of Marana's population growth, for encouraging growth in appropriate areas, and constraining development where growth is inappropriate. Developer provided infrastructure, coordinated with Town efforts, is an important component of this element.

As a rule, public facility planning in a developing community like Marana should meet the following three important criteria:

1. Service standards that are adequate and equitable for all parts of the community.
2. Services to new developments that is economical and efficient.
3. Financing that maximizes the long-term value of local government assets.

With these guiding standards, expansions of facilities and services can be more carefully planned and implemented, resulting in benefits to the Town, the private sector, and other levels of government.

As Marana grows, additional facilities and services will be needed to meet growing expectations throughout the community. Once those public facilities and services are established, a broader revenue base can support these and other desired investments and constrain development where growth is inappropriate. Developer provided infrastructure, coordinated with Town efforts, is an important component of this element.

6.3.3. Existing Conditions

Existing service levels provided through Marana's public facilities are varied. Services and facilities needed to support the original rural community have evolved to serve new development throughout a much larger community. The Town's existing infrastructure is a mix of components that vary in quality, age, capacity, and jurisdictional responsibility. Some facilities, such as roads and water, are generally newer since they were completed by the Town or by developers after incorporation in 1977. Other facilities are older and require major maintenance, expansion, or replacement.

Recently developed areas of the community have been designed and constructed with relatively complete urban services. Older neighborhoods, less dense and more rural in character, often lack some public services, including public sewer, water, and paved roads. These areas will not accommodate additional growth without infrastructure improvements.

The Marana Municipal complex will serve as the anchor to development in northern Marana.

The completion of the Marana Municipal Complex in 2005 allowed the consolidation of Town government functions. The 110,000 square foot building serves the Town's administrative, law enforcement, and judicial needs. A new Northwest Fire/Rescue District on Marana Main Street was also completed in 2005. The Marana Municipal Complex and NWFD Station 26 station are two facilities that will anchor this portion of Marana Main Street.

The Town of Marana also has been adding improvements and expansions to the Marana Operations Center (MOC) on Ina Road. Currently the MOC houses the Marana Water Department, Marana Police Substation, and the Public Works - Operations and Maintenance Division.

6.3.4. Current, Proposed or Newly Completed Plans

To address the needs of infrastructure for growth, Marana has created several plans to address specific public services or facilities. These plans inform and enable the Town to work with regional agencies to determine future Public Works requirements for transportation, water, wastewater, major drainage facilities and other infrastructure. Public and Quasi-Public Facilities are shown on the map on page 6.3.A.

Relevant plans include the Water Master Plan, the Marana Transportation Master Plan Update, and the Marana Parks, Recreation, Trails and Open Space Master Plan. Each of these plans provides information on existing facilities, assesses current and projected needs, makes recommendations for future public and private actions, and are integrated for planning purposes.

In addition, the Capital Improvements Program (CIP) is an annually updated blueprint for planning the Town's capital expenditures, and is one of the most important responsibilities of local government officials. The CIP coordinates a multi-year approach to community planning, financial capacity and physical development and is composed of two parts—a capital budget and a capital program. The capital budget is the upcoming year's spending plan for capital items (tangible assets or projects that cost at least $100,000, represent significant public impact, and/or have a useful life of at least five years). The capital program is a plan

for capital expenditures that extends five years beyond the capital budget. Development of a CIP that insures sound fiscal and capital planning requires effective leadership and the involvement and cooperation of all municipal departments.

Schools

Educational facilities are important to a family oriented community such as Marana, and the Town works with three school districts on a regular basis. There are two school districts within Marana town boundaries, and a third district in the planning area as shown in the Schools Districts Map on page 6.3.B. The Marana Unified School District serves most of Marana and currently administers 16 schools with over 13,000 students. The Marana District includes two high schools, two middle schools, and twelve elementary schools of which nine are award winning "A+" schools and three are "National Blue Ribbon" schools.

The Flowing Wells School District serves the southern portion of Marana, and currently administers 10 schools for over 6,000 students, including one early childhood center, six elementary schools, one junior high school, and two high schools. The Red Rock School District serves Pinal County in the Marana Planning Area with one elementary school in Red Rock. The district plans to build a second elementary school in Red Rock, but this is largely dependent on the development of master planned communities in the area.

Parks

Marana currently has an extensive system of parks, with over 140 acres of parks developed or under construction. This system will need to be continually expanded to maintain an appropriate ratio of park acreage to population (see the Parks and Recreation Element for more detail). Forecasts for future park needs, programs, and their locations will be addressed in the update of the Parks, Recreation, Trails, and Open Space Master Plan.

Libraries

Marana has two branch libraries operated under the Pima County Regional Library System. The Geasa-Marana Branch Public Library is adjacent to Ora Mae Harn Park in northwest Marana, with approximately 3,000 square feet of building area and a collection of books, journals, tapes, discs, etc. The new Wheeler Taft Abbett, Sr. Library is located adjacent to the Crossroads at Silverbell Park at Cortaro Road and the Santa Cruz River, with 25,000 square feet and was completed in 2008.

Civic events are often held at the centrally located library

Water within Marana is provided by the Town of Marana, Tucson Water, various small water systems and some residents and businesses have private wells, see Water Resources Map on page 8.3.A. A portion of households in Marana rely on private septic systems. Where possible, new developments will be served by public sewer, and stricter regulations will be applied to new septic systems and their use.

Sewage generated from residential, commercial and industrial uses within the Town is collected and transported to Pima County's Ina Road and the Marana Wastewater Treatment Plants (WWTP) for treatment and disposal. The Ina Road WWTP, managed by Pima County, also serves the City of Tucson and other County generators. The Marana WWTP serves the rest of Marana and is currently rated to treat up to 700,000 gallons of wastewater per day.

The Town intends to assume responsibility for the wastewater conveyance system. Current plans call for a new 1 to 1.2 million gallon per day plant which may be needed to manage flows from the north portion of Marana and possible the Dove Mountain area. This proposed plant will be designed to accommodate future expansions, as necessary, for later demands.

Additional discussion of water and wastewater plans for the Town can be found in the Water Resource element of this General Plan.

Soil cement bank protection along the Santa Cruz River.

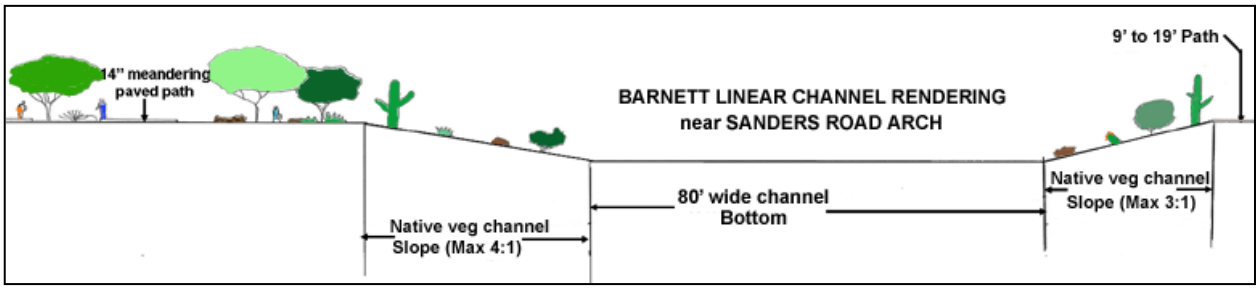
A large portion of the Town lies within the 100-year floodplain of the Santa Cruz River. Bank protection has been constructed along portions of the wash to allow development of the Continental Ranch community as well as future development in Northwest Marana.

Two significant road projects have been completed. A new interchange on Interstate 10 at Twin Peaks along with the extension of Twin Peaks Road to Tangerine Road.

The need for a roadway to relieve traffic congestion in the Dove Mountain area, the Town, and the northwest area of Tucson is crucial. The new Twin Peaks Road (Camino de Mañana Roadway Project) is a 3.3-mile roadway that consists of a four-lane median divided roadway that connects the Dove Mountain area to the new Twin Peaks Interchange at Interstate 10.

Several additional road projects are now in process. The Tangerine Road and I-10 interchange will be upgraded. Plans are in final design at this time. Tangerine Road is planned to be upgraded east of Interstate 10 to La Cholla over time. Currently the project is in the design concept process. A new interchange (Tortolita Boulevard) will also be constructed on Interstate 10 south of the Pima/Pinal County line. (Refer to Section 6.1.7. in the Transportation element for additional information.)

The Barnett Linear Park and Flood Control Project, planned along the existing Barnett Road alignment from Interstate 10 to the Santa Cruz River, will serve two important functions: it will provide a major east-west drainage channel to relieve flooding from the Tortolita Alluvial fan to the Santa Cruz, and provide recreation as a major linear park.



6.3.5. Opportunities and Challenges

Marana has many infrastructure needs to support its growth. Some of these needs may be supplied by other providers such as the Bureau of Reclamation, Arizona Department of Transportation (ADOT), Pima County, Pinal County, the Regional Transportation Authority, and other entities that provide coordination and funding on a cost-shared basis. Other infrastructure improvements may require private investment.

Marana's challenge is to keep priorities within the limits of available financial resources. Existing facilities must be kept safe and operational while addressing expansion needs. Site selection and allocation of funds for new facilities should be programmed in advance of needed services. Private developers will continue to provide the necessary infrastructure for their development projects.

6.3.6. Issue Identification and Trends

An ongoing issue for the Town's long term financial forecasting is the volume and pace at which capital assets and infrastructure have been added. With each new asset comes an obligation to prepare for the maintenance and eventual replacement of that asset. These responsibilities must be addressed as they affect the annual operating budgets for years to come. The Town of Marana understands the importance of long term planning and has begun steps to prepare for its future.

Proposed improvements to public facilities and services will be determined and phased to coincide with the town's growth. Over the next 20 years, Marana anticipates over 60,000 additional residents, 5,000 to 10,000 new jobs, and thousands of tourist visitors. To respond to these increasing demands, new and improved facilities and services will require planning, design, and construction. Approximately

ten miles of local streets and an equal length of new or improved travel lanes on arterial/collector roadways will be required annually for at least a decade.

Similar extensions of water and wastewater lines will also be essential to meet demand. Utility companies will need to extend electric, telephone, fiber optics, and cable lines to meet future demand.

Twin Peaks Road Bridge and I-10 interchange

Meeting future demands will also require expansions of other government services such as Town government administration and police services that will include an additional substation near the Twin Peaks/Linda Vista interchange on Interstate 10 and the potential for another substation or storefront on the far northwest corner either near or into Pinal County. Other contracted services such as fire and emergency medical protection will require additional facilities to serve the growing population.

Expansions of schools, libraries, and parks are also important. A number of new schools may be required along with expansions of existing schools. The Marana Unified School District is planning to build one elementary school and one middle school, if the student population continues to grow. A new high school is also tentatively planned for construction in the near future.

Red Rock School District plans to add one elementary school to serve new residential development in Red Rock. Branch libraries, new parks and playgrounds, and expansions of the community-wide trails system will also be needed (see the Parks Recreation, and Open Space and Trails Elements for more detail). Additional locations and facilities will be needed for water and wastewater treatment (see the Water Resources Element for more detail), utility sub-stations, landfills, and other public facilities.

Public works for drainage must be coordinated so that both the Town's new urban development areas and rural areas are protected from flooding impacts of the Santa Cruz River, Tortolita Fan, and other sheet flow problem areas. Clearly, the expansion of Marana's public facilities and services will be a dominant future trend. More detailed information on meeting the needs of growth are found in the Cost of Development Element.

6.3.7. Strategic Direction

The Town will continue to identify, prioritize and provide essential public services in a cost-effective and timely manner to ensure that Marana's roadways, utilities, and programs are kept moving safely and efficiently.

6.3.8. Goals, Policies and Actions

Goal 1: Plan for Future service and facility needs. New facilities and services needed to meet Marana's anticipated growth should be identified in advance of program needs. Municipal systems and facilities should be designed to meet ultimate capacity in order to avoid retrofitting and replacement costs.

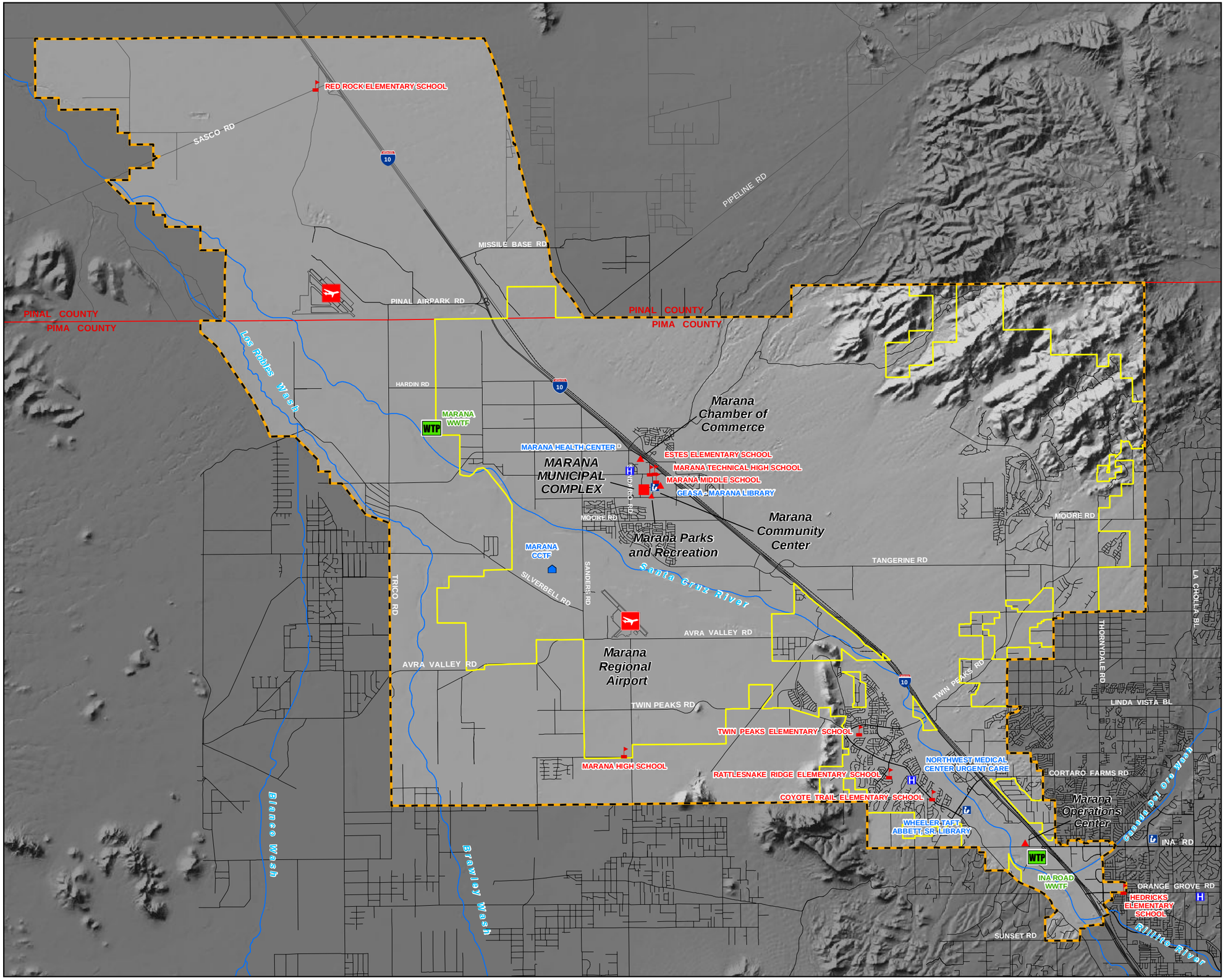
a. Policy: Determine infrastructure and services needed to meet future growth projections.

1. Action: Evaluate population and economic development forecasts to assess future demand.
2. Action: Determine existing and ultimate capacity needs of infrastructure.
3. Action: Determine the Town's responsibility and capital costs for providing infrastructure.
4. Policy: Prioritize capital investment and operational budgets for existing and new public services and facilities.
5. Action: Identify facilities that need upgrading or expansion and phase improvements based on revenue availability.
6. Action: Evaluate, update, and monitor Capital Improvement Program progress.
7. Action: Seek economies of scale for appropriate public facilities and services.
8. Action: Consider privatized services and facilities where appropriate.

Goal 2: Establish strategic partnerships between the town, other jurisdictions, private entities, and land owners. Joint venturing with developers and with other jurisdictions can support Marana's ability to provide infrastructure in advance of planned growth. Private utility providers are also key participants in plans to open new areas of the community for development. Creative financing, including cost sharing with developers, can provide facilities and services that attract employers and increase revenue for the benefit of the community.

a. Policy: Determine appropriate public facility projects for cooperative public/private participation and financing.

1. Action: Actively pursue opportunities for joint ventures with other public entities.
2. Action: Identify needs and incentives for private investment in infrastructure.
3. Action: Identify priority growth areas and provide incentives for their development.
4. Action: Continue to evaluate and implement Community Facilities Districts and Improvement Districts as a means to help pay for needed infrastructure (see the Cost of Development Element).
5. Action: Require developers to bear the full cost of infrastructure in developments outside Marana's growth areas.
6. Action: Promote developer-financed facilities and services with incentives for development applications.
7. Action: Continue requiring private investment in parks and recreational amenities.
8. Action: Encourage the hospitality industry to invest in the community. Consider the potential for convention facilities with input from the hospitality industry.
9. Action: Work to establish developer-provided oversized improvements to meet ultimate growth needs with payback arrangements to the original provider.



MARANA

2010 General Plan

6.3.A

Public and Quasi Public Facilities

- School
- Medical Facility
- Library
- Wastewater Treatment Facility
- Airport
- Planning Area
- Marana Town Limits
- Pima/Pinal County Boundary

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Miles

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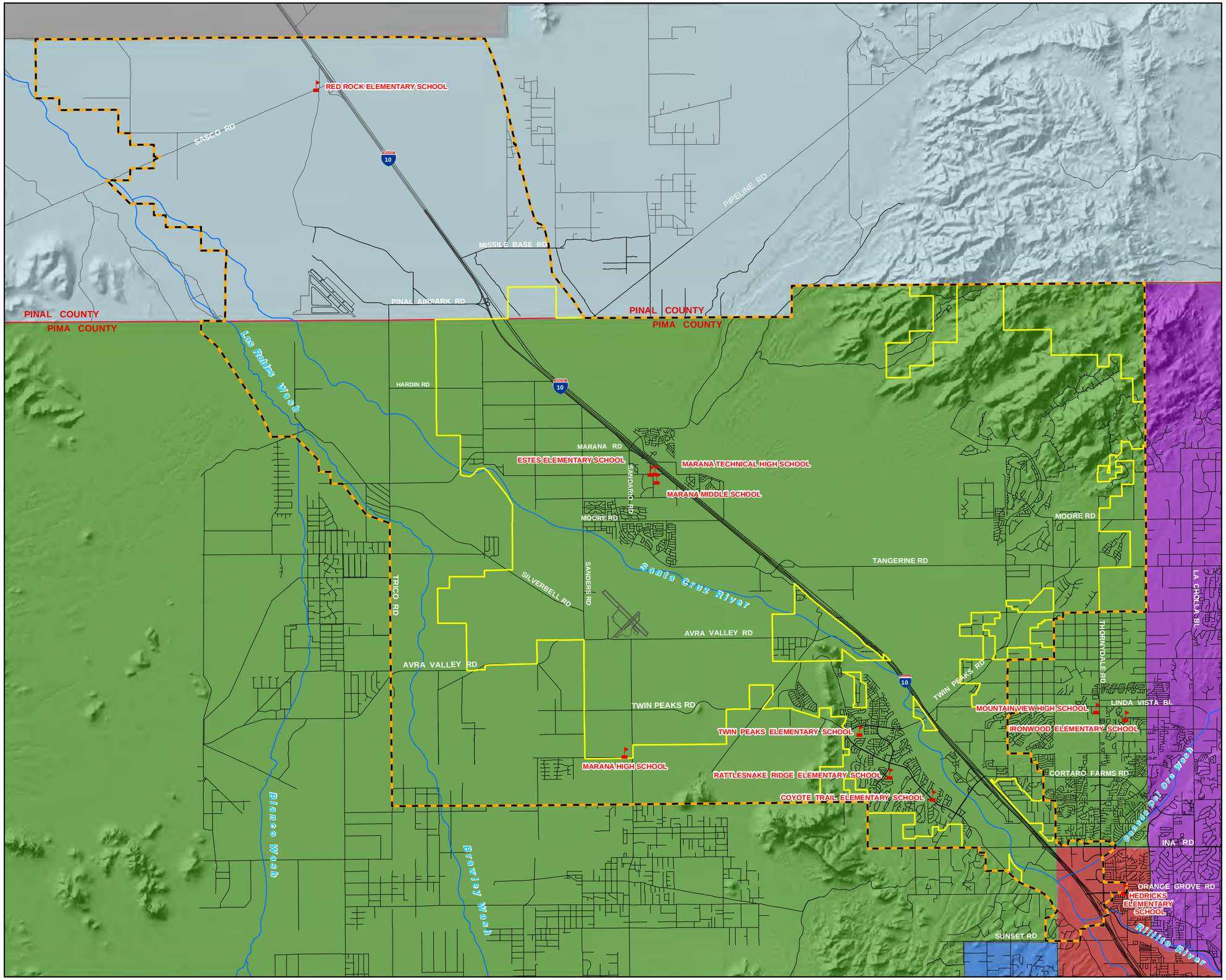

MARANA

2010 General Plan

6.3.B School Districts

- Marana
- Amphitheater
- Flowing Wells
- Tucson Unified
- Red Rock Elementary
- Planning Area
- Marana Town Limits
- Schools
- Pima/Pinal County Boundary

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6.4.1. Introduction

Marana can facilitate the development of an economically sustainable community through planning and appropriate extension of infrastructure. Working in concert with developers to achieve this goal will help lay the foundation for a favorable climate for future development. Town policies help guide the construction of the necessary infrastructure to serve the needs of residents and businesses. Town policy requires that infrastructure extensions serving new developments be paid for by developers' so that the cost of new development is not paid by existing customers. The Town is ultimately responsible for maintaining the developer's initiated and installed public infrastructure.

6.4.2. Background

The Town of Marana is proactive in determining and identifying financing opportunities to fund public infrastructure and to accommodate current and projected community growth. The Town is moving from development patterns typical of a rural farming community to those development patterns consistent with an urban community. Key to this change in development patterns is the need to identify a practical method to address funding for required upgrades to existing infrastructure. The Town must balance the needs between planned and constructed roadway systems, parks, utilities, public facilities, and services. The costs of upgrades to current operations and maintenance systems must be factored into annual operating budgets. Community infrastructure is essential to serving residents and for the future growth of the community. This General Plan Update assumes that Marana will maintain its expenditure policy commitment: **all new growth must pay for itself**.

6.4.3. Desired Outcomes

In order to achieve the vision of the Town's Strategic Plan and Economic Development Roadmap, it is necessary to phase infrastructure development into achievable, programmable increments. The annual Capital Improvement Program (CIP) is used to steer Town growth in an incremental manner and to address infrastructure deficiencies. The CIP has been developed by coordinating all of the Town's projects with departmental master plans, the Strategic Plan, and the Economic Development Roadmap. Goals and objectives of the Town are therefore implemented appropriately, cohesively and in an economically viable and responsible manner.

Town CIP projects are monitored for a minimum of five years to provide effective evaluation and appropriate fiscal programming in order to coordinate and evaluate additional proposed projects. This allows management to establish priorities and,

construction schedules, manage bonding capacity, and determine any appropriate updates to fees for repayment as applicable.

6.4.4. Existing Conditions

Currently 35,559 people live within the 121 square miles that make up the Town of Marana. Providing a variety of services to meet the overall growth of the Town is important and is being achieved through the development of important infrastructure.

Marana Regional Airport

The Marana Regional Airport, located on Avra Valley Road east of Sanders Road, plays a crucial role in the Town's development. The Marana Regional Airport, for which the Town assumed ownership and management responsibilities in 1999, currently has two runways, with an average of 110,000 take-offs per year. Additionally, there are 310 on-site aircraft based at the Airport.

Water

Within the Town of Marana there are approximately 15,000 to 17,000 potable water service connections. Of these connections, 5,600 are provided by the Town with the majority of the remaining connections being provided by the Tucson Water District. In addition to Marana and Tucson Water, there are several smaller private potable water providers within the Town's corporate limits.

Examples of two well sites in Marana

The Town owns and operates nine individual water systems, containing 21 wells, 19 boosters, 18 reservoirs and 110 miles of infrastructure. Several of these systems rely on a single water source. Therefore, it is imperative that this water source is operational around the clock, every day of the year. Having redundant wells to support the water system is one of the Utility Department's objectives. Currently, all potable water delivered by the Town is well water.

Tucson Water is the largest potable water provider within the Town at this time. They provide service to the Continental Ranch and Dove Mountain areas. As of 2010, Tucson serves approximately 10,000 Town of Marana customers. Tucson uses a combination of ground water and surface water.

Sewer

All public wastewater services are currently provided by the Pima County Regional Wastewater Reclamation District via two reclamation facilities (Marana and Ina Road Water Reclamation Facilities). The Marana facility is a 700,000 gallon a day facility located within the north Marana area and serves areas that include Gladden Farms, Rancho Marana, San Lucas, the Marana Main Street area and the Town's Municipal Complex.

Booster Station

The Town's plans for wastewater services are documented within its proposed Regional Section 208 Plan Amendment and Sewer Basin Study. This study and requested amendment have been submitted to the Pima Association of Governments and Central Arizona Association of Governments as of the writing of this General Plan Update. These plans summarize the Town's goals and objectives as the Designated Management Authority for the provision of wastewater services within its defined planning area.

Parks and Recreation

The Marana Parks and Recreation department plays a crucial role in shaping the Town, and is strongly involved in two focus areas of the Marana Strategic Plan: Heritage and Recreation. The Parks and Recreation department maintains eight public parks, totaling an area of 145 acres. Additionally, the Parks and Recreation department manages 57 miles of shared-use (bicycle and pedestrian) paths and trails. The Town of Marana projects a demand for 730 total acres of parks by the year 2020. The Parks and Recreation Department anticipates adoption in 2010 of an updated comprehensive Parks, Recreation, Trails and Open Space Master Plan.

Police/Legal

The Marana Town Council clearly established public safety as a top priority for the Town with the adoption of the 2011 fiscal year budget. Maintaining a high ratio of sworn officers to residents assists in meeting the Strategic Focus Area of Community Building by providing a safe environment for all residents and visitors to Marana. There are currently 83 sworn officers, with management keeping a watchful eye on population growth to ensure a balance between the number of sworn officers and residents. The Town of Marana Municipal Court adjudicates civil traffic violations, criminal misdemeanors and violations of Marana Town Ordinances.

Roads

The Marana Public Works department is responsible for the maintenance of over 400 lane-miles of roadways, the associated traffic control devices such as traffic signals, signs and pavement markings, a well as structures such as bridges and drainage culverts.

The Public Works department and the Development Services department work closely together to ensure the careful planning, design and administration of major roadway projects programmed for construction in the Town's Capital Improvement Program.

6.4.5. Current, Proposed, or Newly Completed Projects

The Town has a number of current and proposed capital projects and has recently completed several major projects. Current economic conditions require the need for careful financial management when establishing the scheduling for current and proposed projects, as well as thorough oversight during a project's construction. To that extent, Town staff comprehensively reviews each current and proposed project to ensure the project fits within the funding guidelines established by the Mayor and Council.

Current and Proposed Projects

To ensure that capital projects that are currently in design or construction phases adhere to the objectives of carefully balancing between the needs of the Town and current economic conditions, the Town is focusing on regional infrastructure improvements. A good example of this effort is the current multi-jurisdictional project for the preparation of a Design Concept Study for a segment of Silverbell Road. The Town will ensure the design integrity for the portions of this roadway that fall within the Town's jurisdiction, from Ina Road to the southern Town limits. Another major roadway project currently in the design stage is the Tangerine Road Traffic Interchange with I-10. The interstate is a critical transportation corridor extending across Marana's town limits, and the Town is dedicated to improving connections with the interstate. Another recent major roadway improvement project is the Camino De Mañana (recently officially renamed to Twin Peaks Road) project, which provides for a seamless integration between the Twin Peaks Interchange with I-10 and Dove Mountain Boulevard.

Completed Projects

Recently completed projects also demonstrate the Town's commitment to providing necessary infrastructure improvements as well as recreational opportunities for our residents. Such projects include the Silverbell Road Sanitary Sewer Interceptor (road reconstruction) from Ina Road to Cortaro Road, and the completion of the Santa Cruz River Trail System from Twin Peaks Elementary School to a point north of Continental Ranch.

Proposed Projects

- Camino De Mañana Reservoir
- Wastewater Sewage Treatment Plant
- Airport Air Traffic Control Tower
- Barnett Linear Channel from I-10 to the Santa Cruz River (Construction)
- Airport Terminal Expansion (Construction)
- Regional Sports Park – Bureau of Reclamation Site
- Twin Peaks Road from Silverbell Road to Saguaro Springs
- Thornydale Road, Tangerine to Moore Improvements
- Runway Constructions and Extensions
- Water Main Line from Cortaro Farms Road to Linda Vista
- Reservoir and Booster Station at Hartman Vistas Well Site
- Ina Road Between I-10 and Silverbell Road, and Bridge Over the Santa Cruz River Improvements
- Beard House Renovations

6.4.6. Opportunities and Challenges

Opportunity – Town's Distinction as a Supportive Business Partner for Development

The Town provides value to developers through various means. Governing documents such as the Marana Strategic Plan, the Economic Development Roadmap, the General Plan and the Capital Improvement Program, augmented by efforts ranging from the Marana Job Creation Incentive Program to the Major Routes and Streets Plan, provide a foundation upon which positive development can be envisioned and implemented. Additional incentives are made available to developers identified as target industries in the Economic Roadmap.

Opportunity – Town's Mechanisms For New Development to Pay For Infrastructure

Marana continues to enforce provisions such as impact fees so that the cost of expanding infrastructure and community amenities is paid by developers of new residential or commercial projects. The Town currently has in effect multiple impact fees for roadways, utilities and parks. Impact Fee Benefit Areas can be found on the Impact Fee Benefit Areas Map on page 6.4.A. The Town will ensure that areas identified as having a

need for additional amenities or infrastructure requirements will remain the focus for developer-provided improvements. Future consideration may be given to implementing fees such as education center fees, and fees for general government or police services.

Impact Fee Benefit Areas are illustrated on the Impact Fee Benefits Area Map on page 6.4.A; descriptions of each Impact Fee Area can be found below.

Lower Santa Cruz River Levee Benefit Area (Ordinance 99.02)

- Pays back Pima County Regional Flood Control District for construction of the levee. Per ordinance, only affects areas that benefited from the levee's construction.

South Transportation Benefit Area (Ordinance 2001.02)

- Utilized for the Twin Peaks Interchange/I-10 improvements.

Marana Parks Benefit Area (Ordinance 2005.11)

- Town wide impact fee that is utilized for the construction of new public parks.

Northwest Marana Transportation Benefit Area (Ordinance 2005.12)

- Assists in covering the anticipated costs for providing interchange, arterial and collector roadway improvements needed to serve the Northwest Marana Transportation Benefit Area.

Northeast Marana Transportation Benefit Area (Ordinance 2007.33)

- Assists in covering the anticipated costs for providing interchange, arterial and collector roadway improvements needed to serve the Northeast Marana Transportation Benefit Area.

Challenge – Planning for Build-Out and Funding Strategies

The funding mechanism to provide system expansions to accommodate the Town's development build-out is undetermined at this time. The Town must identify both the means (who will pay) and the mechanism for paying for system expansions. Completing infrastructure systems is critical in maximizing efficiency and ensuring return on public investments. Infrastructure, particularly roads, water, and wastewater systems, will be sized for build-out. The Town must continue to identify corridors that are crucial to the Town's future and ensure that the necessary infrastructure is developed and that a fair and equitable mechanism for paying for that infrastructure is available.

6.4.7. Issue Identification and Trends

Policies established by the state government present certain issues that the Town must keep in mind. Arizona Legislators established a moratorium on new impact fees during the Town's fiscal year 2009/2010. Additionally, this moratorium

prohibits creating new impact fees and raising existing impact fees unless the fees are automatically indexed. As a result, the Town's benefit areas for roads and parks will continue to automatically increase, based on our adopted index. However, impact fees for utility infrastructure which are not automatically indexed, will remain at the level established when the fees were last adopted, prior to the recent moratorium legislation.

State legislation also prohibited the adoption of new building codes for a period of three years. This is a benefit to the Town in the current code cycle as more development-prohibitive requirements in recent building codes are not going to be adopted at this time. However, development will be impacted when this moratorium is lifted, as the building community will then be required to move forward by an anticipated two building code cycles. The Town is considering options for assisting the development community to ensure that developers capable of moving into potentially more costly building code cycles while maintaining the ability to financially pay for development-related costs via impact fees and other funding mechanisms.

6.4.8. Strategic Direction

The Town will continue to develop a comprehensive Capital Improvement Plan (CIP), yielding projects that logically support the overall goals and objectives of the adopted Marana Strategic Plan, General Plan, Draft Habitat Conservation Plan, and the Economic Development Roadmap. The Capital Improvement Plan will continue to be updated and adopted by the Town Council annually as part of their fiscal year planning and budget process.

Department Directors will continue to collaborate and develop a cohesive CIP plan that assures underground utilities are programmed ahead of surface projects (i.e. water utilities, roadway and parks projects). This partnership promotes the sharing of resources, including inspection and project management, thereby minimizing Town project expenses.

6.4.9. Goals, Policies and Actions

Goal 1: A Town that effectively manages its growth.

a. Policy 1: Provide adequate facilities and services concurrent with future growth.

1. Action: Regularly update and coordinate its Capital Improvement Program (CIP) with the General Plan, Strategic Plan, Draft HCP, and the Economic Roadmap
2. Action: Use the CIP to provide timely infrastructure and facilities to serve existing and new development.
3. Action: Critically evaluate the Town's fiscal capacity to incur annual operation and maintenance costs when contemplating the implementation of capital improvement projects.

Goal 2: A Town that equitably collects for and distributes the costs of growth.

a. Policy: Maintain and monitor the level of municipal services and facilities.

1. Action: Continually evaluate user fees commensurate with the Town's costs to provide municipal services.
2. Action: Explore new potential funding sources to provide the additional regional infrastructure required to serve future development within the Town's boundaries.

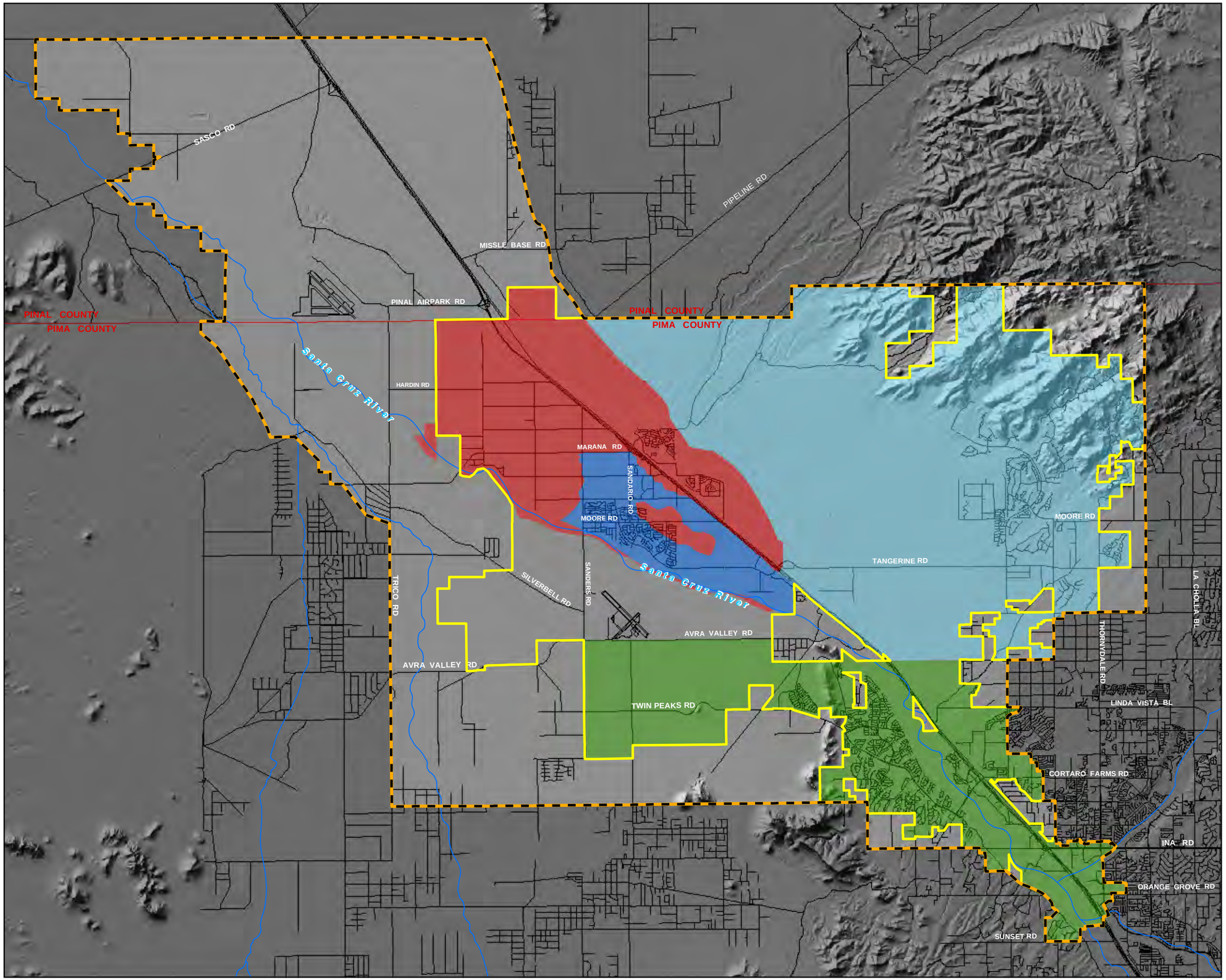
b. Policy: Evaluate the availability and capacity of funding sources to finance growth.

1. Action: Assess the Town's competitiveness in expanding and recruiting business and industry within the Town.
2. Action: Consider the necessity of hiring or retaining a full-time grant preparation/coordination position to enhance the Town's capture of state and federal infrastructure funding and other community resources.
3. Action: Identify and pursue possible public private funding ventures.

Goal 3: Provide services and facilities for new development in the most cost-effective manner.

a. Policy: Conduct a comprehensive economic analysis of the life-cycle costs and benefits of providing specific services and facilities for new and future development.

1. Action: Work to create a database that shows construction costs, long-term operations and maintenance costs, and identifies the revenue resources for them.
2. Action: Work to conduct long-term cost-benefit analyses and identify revenue sources before any privatized service is considered for public support.



MARANA

2010 General Plan

6.4.A
Impact Fee Benefit Areas

- Northeast Marana Transportation Benefit Area
- Lower Santa Cruz River Levee Benefit Area
- Northwest Marana Transportation Benefit Area
- South Transportation Benefit Area
- Marana Parks Benefit Area
  Marana Town Limits
- Pima/Pinal County Boundary
- Planning Area

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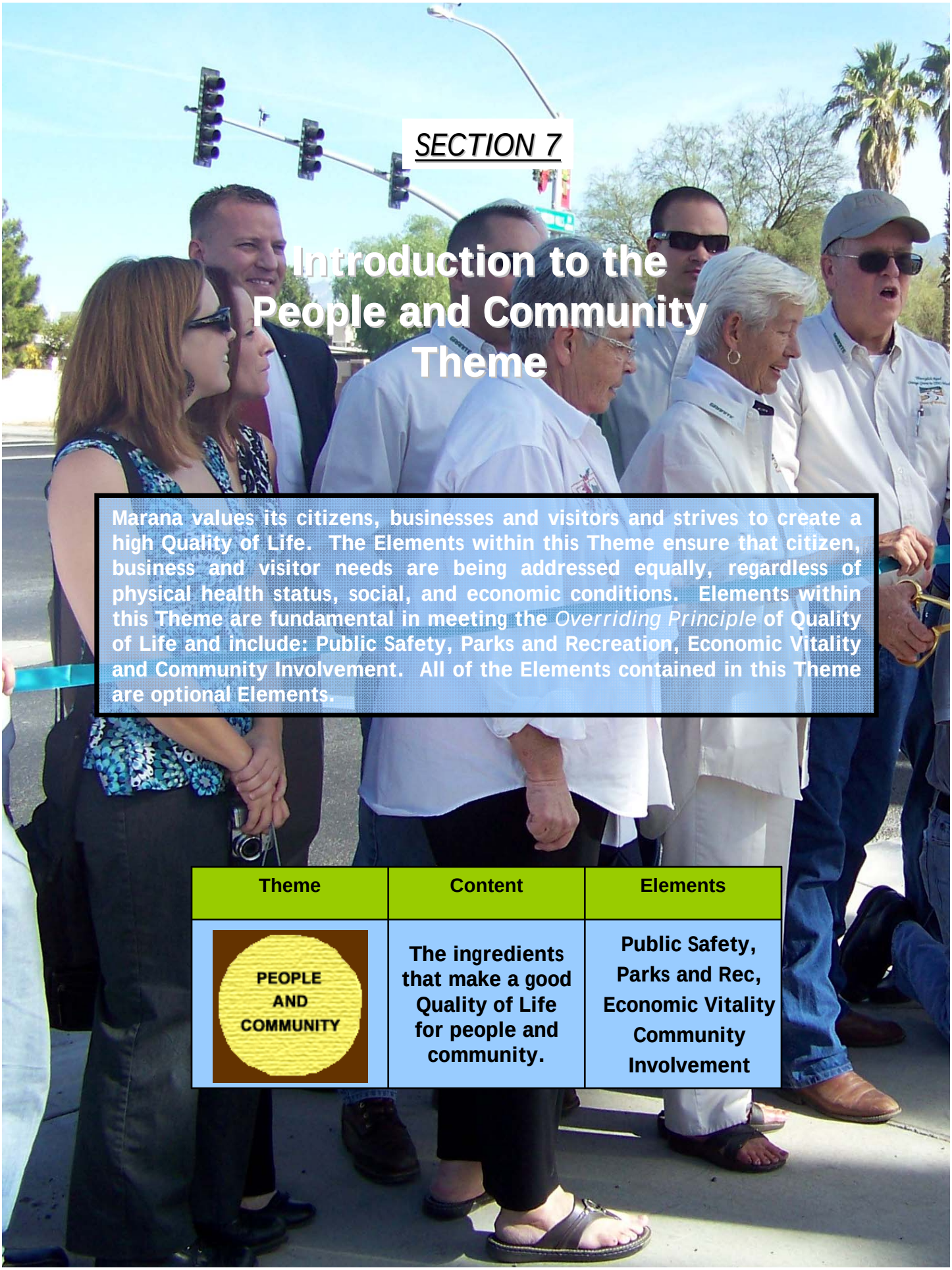


SECTION 7

Introduction to the People and Community Theme

Marana values its citizens, businesses and visitors and strives to create a high Quality of Life. The Elements within this Theme ensure that citizen, business and visitor needs are being addressed equally, regardless of physical health status, social, and economic conditions. Elements within this Theme are fundamental in meeting the *Overriding Principle* of Quality of Life and include: Public Safety, Parks and Recreation, Economic Vitality and Community Involvement. All of the Elements contained in this Theme are optional Elements.

Theme	Content	Elements
PEOPLE AND COMMUNITY	The ingredients that make a good Quality of Life for people and community.	Public Safety, Parks and Rec, Economic Vitality Community Involvement

7.1.1. Introduction

Public safety is one of the foundations to quality of life within a community. The components to public safety generally include prevention and protection from crimes, fires and medical emergencies as well as mitigation and prevention of disasters. The community response to these components consists of the Marana Police Department, several fire departments (Northwest, Avra Valley, Rural Metro and Picture Rocks Fire Departments; see Public Safety Map on page 7.1.A, and cooperation with regional efforts related to emergency planning, preparedness, response, and recovery.

The Marana Police Department (MPD) is committed to the prevention and reduction of crimes, solving community problems, protection of life and property, preservation of laws, ordinances and the constitutional rights of all persons within our jurisdiction.

The Northwest Fire District (NWFD) serves residents of the northwest metropolitan Tucson area by ensuring that the community receives consistent, high-quality emergency services at a reasonable cost. Since its inception in 1983, the District has provided increasingly higher levels of fire protection and emergency medical services to a rapidly growing population. The District currently provides emergency and community services to most of the Town of Marana.

Access to medical services is very important to the health, safety, and welfare of a community. The Town is home to numerous individual providers who practice a large array of specialties. Marana Health Care and Northwest Medical Center are the largest providers of medical services within the Town. Marana Healthcare (MHC) was founded in 1957 and predominately served migrant farm workers. MHC has grown into a multiservice health care clinic and community services center. Currently, they have 6 locations throughout the region which serve people in both rural and metro Pima County. Northwest Medical Center operates an Urgent Care Facility in the Continental Ranch/Continental Reserve area. The facility is available for walk in emergency care seven days a week.

Town of Marana Building Safety Department is dedicated to structural safety for the benefit and welfare of the Town's residents, business enterprises, and visitors. The department strives to provide timely customer service while maintaining a high level of accuracy and attention to detail in the processing of permits, review of plans, and field inspection of permitted work.

Another critical task in public safety is the identification and remediation of violations to the Marana Town Code and the Marana Land Development Code. The Town's Zoning Code Compliance Officer primary duties are to ensure that the two codes are complied with by identifying and correcting violations relating to maintenance issues, such as graffiti, neglected maintenance, weeds, litter, junk vehicles, illegal placement of signs, and excessive noise or other similar nuisances. Zoning

compliance staff mainly operates on the basis of citizen complaint rather than performing random searches for violations.

7.1.2. Desired Outcomes

The Strategic Plan requires cooperation within governmental agencies, the educational system, public and private social service providers, local businesses and town departments to ensure public safety. The involvement of the criminal justice system, community- and faith-based groups is critical to finding and maintaining solutions to the community's growing needs.

Residents of the Town of Marana must feel secure and safe from actual or potential dangers. The Marana Police Department (MPD) is continually improving processes and looking for ways to increase the level of services offered to make the community residents, commercial users and merchants feel secure and safe from actual or potential dangers.

Building, zoning and fire code enforcement need to continue to maintain and safeguard the public health, safety and general welfare. This is accomplished through construction plan reviews insuring structural integrity, means of egress, stability, sanitation, adequate light and ventilation, energy conservation, and general safety. Building safety is the first step in preserving resident's life and property from fire and other hazards attributed to the built environment as well as provide safety to fire fighters and other emergency responders during emergency operations. The town and the fire district will work to maintain the high level of plans review to ensure that the community is safeguarded.

7.1.3. Existing Conditions

<u>Marana Police Department (MPD)</u>

The Town of Marana is a strong proponent of community policing. The Marana Police Department (MPD) integrates community policing into all activities using a combination of best practices and community mobilization models. MPD is committed to developing innovative approaches to policing which draw heavily on common sense problem-solving in full partnership with the community, its businesses, and other Town and public agencies.

With the understanding that community involvement is crucial, the Town established a Police Citizen Advisory Commission (PCAC) in 2008. The PCAC works to foster and encourage a citizen/police partnership in the prevention of

crime and to develop positive communications and mutual understanding between the community and the Marana Police Department.

The Marana community policing initiative integrates law enforcement and other Town departments with public and private service organizations. MPD partners with other public safety entities and the community to address local concerns and move towards long-term solutions to crime-related problems.

Emergency Management/Homeland Security

Emergency Management/Homeland Security is the responsibility of the Town of Marana in collaboration with federal, state, county, municipal and other emergency response agencies.

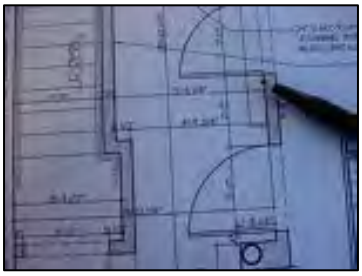
Northwest Fire District (NWFD)

Northwest Fire District finished a recent accreditation for their level of service. The ratings have been upgraded based on response times and access to municipal water.

The Northwest Fire District (NWFD) provides a variety of services to the Town of Marana including:

- Fire code review of all construction plans submitted to the Town within Northwest Fire Department's jurisdiction.
- Inspection of all commercial businesses, schools and government buildings within the jurisdictional boundaries of the Northwest Fire District.
- Fire prevention educational sessions for kindergarten, 2nd and 4th grade classes in public schools that fall within the Northwest Fire District boundaries.
- Fire and emergency medical responses including special team's responses such as hazardous materials teams, technical rescue, Metropolitan Medical Response System (MMRS) and Rapid Response Teams (RRT) within the NWFD boundaries.
- Wildland team responses for urban interface including buffelgrass eradication and all other wildfire type responses.

The Building Safety Department



A building code is the minimum acceptable standard used to regulate the design, construction, and maintenance of buildings for the purpose of protecting the health, safety and general welfare of the building's users. The purpose of building codes is to construct safe buildings, thereby reducing deaths, injuries and property damage. Statewide adoption and enforcement of such codes result in consistent design and construction of safer buildings.

A building permit is legal permission to start construction of a building project in accordance with approved drawings and specifications. The purpose of the permit is to ensure that by following code guidelines, the completed project will meet minimum standards of safety and will be less likely to cause injury to people occupying the building now or in the future.

7.1.4. Current, Proposed, or Completed Projects

Current Projects:

Marana Police Department (MPD)

- Partnership with the Pima County Sheriff's Department and the Arizona Department of Public Safety to assist in training current and newly appointed detectives.
- Area crime target programs which have shown reduction in property loss through incidents of robbery, auto theft, larceny, and vandalism through graffiti.
- A reorganized, revitalized and redeveloped Volunteer in Police Service (VIPS) program.
- Participation on the Pima County Regional special weapons and tactics (SWAT) and explosive ordinance disposal (EOD) teams.
- One officer has been assigned to the Counter Narcotics Alliance (CNA).
- Two officers are working with the Federal Drug Enforcement Agency (DEA).
- Community resource programs including neighborhood watch, Vehicle Identification Number (VIN) etching, Operation Life Saver, children safety and protection programs, senior citizen anti-victimization programs, business safety and security programs, and other outreach programs supporting community involvement in public safety.
- Various grant programs including a driving under the influence (DUI) program through the Arizona Criminal Justice Council, a "click-it-or-ticket" program along with a DUI program through the Governor's Office for Highway Safety, and a federal grant for violator-directed patrols.
- On-going staffing for annual special events include ensuring traffic flow and security for the Accenture/PGA event in Dove Mountain; town events such as Founders' Day and the Fourth of July; Tour de Tucson and Tour de Tucson Mountains bicycle races on town roadways; and other events.

Emergency Management/Homeland Security:

- All-Hazards emergency planning cooperation through a federal grant to support regional and town preparedness, response, recovery and mitigation related to Homeland Security.
- The hiring of an emergency planner to work with the Town and at the regional level.

The Northwest Fire District (NWFD):

- Construction of training facilities within the Town of Marana to provide better access to necessary training for emergency services.
- Fire code review of all construction plans submitted to the Town within Northwest Fire Department's jurisdiction.
- Inspection of all commercial businesses, schools and government buildings within the jurisdictional boundaries of the Northwest Fire District.
- Fire prevention educational sessions for kindergarten, 2nd and 4th grade classes in public schools that fall within the Northwest Fire District boundaries.
- Fire and emergency medical responses including special team's responses such as hazardous materials teams, technical rescue, Metropolitan Medical Response System (MMRS) and Rapid Response Teams (RRT) within the NWFD boundaries.
- Wildland team responses for urban interface including buffelgrass eradication and all other wildfire type responses.
- UASI Grants to assist with training and equipment for specialized responses in the Town of Marana.
- A Memo of Understanding (MOU) with the Town of Marana to assist with school and commercial business inspections.

Marana Healthcare (MHC):

- Marana Healthcare is building a new 74,656 square foot expandable, tri-level facility on a 7 acre site west of the Marana Municipal Complex. The first phase of the project should enable service to 50,000 plus people making approximately 150,000 visits each year. The center has an anticipated opening of January 2011.

Building Safety Department:

- The International Code Council (ICC) Certification is required for all building permit technicians, building plan examiners, and building inspectors.

Proposed Projects:

Police/Northwest Fire District:

- Plan for a joint Northwest Fire and Marana Police Department substation at a proposed shopping mall near the new Twin Peaks interchange.

Emergency Management/Homeland Security:

- Grant programs for Emergency Operations Center (EOC) equipment including an emergency generator. Potential involvement in other agency training exercises is being developed.

Building Safety Department

- Upcoming review and potential adoptions of the 2012 International Building Codes to replace the currently adopted 2006 International Building Codes.

Completed Projects:

Marana Police Department (MPD)

- AZTracks is a statewide system for the reporting and retrieval of state vehicle crash data. The Marana Police Department has entered into agreements with Arizona Department of Transportation (ADOT) to use the program as a one stop data base to track crash data from 1995 – 2008.
- A satellite police office has been relocated (5100 West Ina Road).
- Increased police presence through the expanded use of Volunteer in Police Service (VIPS) in the area of Arizona Pavilions resulted in a measurable decrease in reported crimes.
- Town of Marana Public-Safety Answering Point received a complete upgrade of 911 call handling equipment. This upgrade, funded through the State 911 Office, improved the effectiveness of our call takers, positioned the call center to receive Next Generation 9-1-1 services and converted our call center from strictly an analog service capability to the use of an internet protocol (IP) based system. Telephone trunk lines were added to accommodate an increase in 911 calls.

Emergency Management/Homeland Security:

- Emergency (disaster) preparedness planning consists of three major components: government actions, private organization emergency response actions, and individual or small group actions. Emergency preparedness planning recognizes that in the first 72-hours after a major disaster people must be self sufficient. Governments cannot provide all of the services that may be needed. Therefore, disaster preparedness involves planning efforts by local government, private organizations, and local groups to identify resources, provide public awareness, and formulate plans about what to do in an emergency situation.
- Preparedness is essential for effective incident and emergency management and involves engaging in a continuous cycle of planning, organizing, training, equipping, exercising, evaluating, and taking corrective action to achieve and maintain readiness to respond to emergencies.
- A number of plans have been adopted that, collectively, help the town plan and prepare for hazards and to recover and rebuild after hazard incidents. The plans include:
  - The Town of Marana adopted the National Incident Management System (NIMS),

- The development and adoption of the Emergency Operations Plan (EOP) and the Multi Hazard Jurisdictional Mitigation Plan (MHJMP).
- NIMS is a comprehensive, national approach to incident management that is applicable at all jurisdictional levels and across functional disciplines. It is intended to:
    1. Be applicable across a full spectrum of potential incidents, hazards, and impacts, regardless of size, location or complexity,
    2. Improve coordination and cooperation between public and private entities in a variety of incident management activities, and,
    3. Provide a common standard for overall incident management,
    4. Town training includes NIMS courses as appropriate for staff.

Northwest Fire District
Station 39 built to improve response times in the Town of Marana.

The Building Safety Department

- National Incident Management System (NIMS) training for current Building Safety staff.
- Establishment of the building code enforcement program to resolve non-permitted and other building code violations.

7.1.5. Opportunities and Challenges

Opportunities

Marana Police Department (MPD)

- Technology- provides professional and consistent policing services, 24/7 throughout a diverse population, supported by a broad range of IT systems. This includes our 911 emergency phone system, radio network, digital in-vehicle video capabilities, in-vehicle mobile data computer and records management.
- Provide a positive effect of the economic crisis on workforce supply, as well as the negative effect on resource availability and crime rates.
- Given the growth and changing demographics of Marana, the Police Department must respond accordingly. Hence, change is inevitable. By making these changes, we will continue to be a recognized leader among law enforcement agencies in providing a safe and secure community in which we live, work and play.
- Recruitment and retention- The ultimate goal is to identify individuals with the greatest potential for a successful career in the Marana Police Department and make every effort to retain them.

- Maintain a viable volunteer program to support our Operations Division.
- Ensure that the Department remains visible, approachable, and accessible to the community.
- The Citizen Advisory Commission will continue to meet on a monthly basis to discuss current issues.

The Building Safety Department:

- Free training through International Code Council (ICC) sponsored "Webinars"
- Yearly fall and spring educational institutes sponsored by the Arizona Building Officials (AZBO) for classes for building code issues and updates to current codes.

Challenges:

Northwest Fire District:

- Effects of reduced budget and other resources on staffing, equipment, operations, planning and initial responses.
- Separate dispatching centers.
- Multiple fire agencies.
- Not all areas located within the Town of Marana are covered by Northwest Fire.
- Commercial structures in the Town but outside Northwest Fire's jurisdiction present logistical challenges (i.e. Ritz Carlton).

The Building Safety Department:

- Budget effects on staffing, equipment, and operations, and ultimately service to the public for timely plan reviews and building inspections.
- Coordination with county agencies in terms of permitting and processes.
- Reduced training and educational opportunities for staff to maintain mandatory continuing education units and staying current with building trends and building codes and regulations.

7.1.6. Issues and Trends

Issues:

Marana Police Department (MPD)

- Homeland Security: need to reassess the target list dated in 2004 against current population and business centers, as well as communications and other infrastructure sites.
- Border security: continued smuggling of drugs, people, and firearms through Town limits.

- Cascading of incidents i.e. traffic incident involving hazmat; railroad is co-located with routes for natural gas, jet fuel, gasoline, and fiber optic communication links.
- Flight path events; include crashes related to DMAFB, TIA, other regional airports, and other incidents related to proximity of the Pinal Air Park and the Marana Regional Airport.
- Personal safety at schools and day care centers; at places of employment, economic development centers, etc.
- Epidemic/Pandemic: including human, animal (mad cow, hoof and mouth, etc.), and crossover diseases; medical points of distribution (POD) security; potential depletion of police resources during emergency.
- Community policing.
- Bias based policing issues (profiling).
- Emergency planning: potential for flooding requires emergency planning and mitigation.

Northwest Fire District

- Environmental issues: extreme heat, monsoon activity, micro-bursts, tornados, earthquakes.
- Epidemic/pandemic events that could result in depletion of fire and EMS resources.
- Flooding: areas in the flood plain which may need large scale evacuations.
- Hazardous materials: potential for an interstate rollover of a semi/tractor-trailer loaded with chemicals; or train derailments are a very strong possibility in the Towns boundaries. There is a large pipeline that runs through the Town's boundaries and transports large quantities of combustible and flammable liquids.
- Specialty rescue teams: swift water rescue in the event of a flood or canal rescue; confined spaces and building collapse; high angle rescue teams for stranded hikers or climbers in mountain areas or ravines.
- Structure fires/wild land fires: fire loads range from structures to brush and crops. Small fires can progress from a brush/grass/field fire into structures and residential areas.

The Building Safety Department:

- Building code violations for un-permitted and unsanctioned work.

Trends:

Marana Police Department (MPD)

Statistics show that Marana is a safe place to live, work, shop, play and participate in recreation. Continued development and maintenance of professional and proactive policing, prevention of crime through tactical analysis aiding patrol to intercept crimes, and engaging community involvement are essential.

During 2009, Marana experienced a 5% decrease in property crimes (burglary, larceny, auto theft and arson) compared to the year 2008. Marana's decrease in property crime is in line with the national trend for the first six months of 2009 with a 6.1% decrease compared to the same period in 2008. A 5% decrease in traffic accidents was experienced in 2009 compared to 2008. MPD conducted operational awareness details to educate driver safety at or near railroad tracks in an effort to prevent railroad accidents, which have increased.

The Building Safety Department:

Incorporate green building and sustainable building design concepts into building safety codes and fire codes to maintain and ensure safety and increase efficiency.

7.1.7. Strategic Direction

Marana Police Department (MPD):

The Marana Police Department is a model public safety agency which provides unbiased enforcement of Federal, State, and local laws to deter criminal activity. Department will develop a comprehensive strategy with our community partners in a professional, efficient, and effective manner, resulting in an enhanced quality of life in the Town of Marana.

Emergency Management/Homeland Security:

The Town of Marana will develop an all-hazards, emergency operations plan that corresponds to potential emergency situations, natural and man-made disasters, Homeland Security with functional annexes that are feasible, flexible, and affirmed through tests, training, and exercises. This plan will be utilized and practiced by the Town government, Town agencies and the Town's citizens.

Northwest Fire District (NWFD):

The strategic direction for the Northwest Fire District is covered in two dynamic documents. The first is the District's Accreditation process that covers national guidelines and standards for all areas of the Fire Service, including the response times, prevention, dispatch, equipment, station locations, training and Standard Operational Procedures (SOP's). The second document is NWFD's strategic plan which addresses items not addressed in the accreditation process, including community awareness, community education, internal and external customer service and improving partnerships. Both documents contain short, medium and long term goals for the entire organization. The NWFD strategic plan was developed with input from community stakeholders, local organizations and has been approved and adopted by the Fire Board.

7.1.8. Goals, Policies and Actions

Marana Police Department (MPD)

Goal 1: Protect Town of Marana citizens and their property. Residents and businesses value safety, low crime rates and excellent emergency services. Community safety is best maintained and enforced with high levels of police and life safety services supported by community partnerships. The Marana Police Department is the focal point for public safety response and services.

a. Policy: Work cooperatively with the community to provide a safe place to live, work and visit.

   1. Action: Expand the MPD programs to include representation from all Town Departments and Community representatives within each District to work together, forming partnerships to build trust, reduce crime and create a safe environment.
   2. Action: Provide public safety services to ensure a safe environment through problem-solving, adaptability to change, cultural sensitivity and efficient allocation of resources.
   3. Action: Project the Department's personnel needs and develop policing strategies to respond to the Town's successful attraction of retail, commercial, medical, and residential development.

b. Policy: Provide the highest standards of Service, Professionalism and Integrity to the community and visitors.

   1. Action: Anticipate and prepare for significant, predictable expansion as a result of annexation efforts into Pinal County and current and proposed projects as well as open space that could be developed within the next few years.
   2. Action: Evaluate and plan for the impact on calls for service due to expansion in all areas of the Town, particularly north and extended north.
   3. Action: Proactively address the issue of annexation into Pinal County by forming partnerships with the Pinal County Sheriff's Department and the Pinal County Attorney's office to anticipate new jurisdictional issues.
   5. Action: Provide exemplary internal communications by developing new and expanding existing programs focusing on open communication to include continuation of monthly management team meetings, open door policy, department newsletter and regular constructive conversation with all employees.

Goal 3: Update the disaster recovery plan and improve emergency operations planning. Include outreach to the public.

1. Action: Identify strategies to address emergency response needs and access for east and west sides of I-10/Union Pacific Railroad/Santa Cruz River.

Goal 4: Expand the MPD volunteer program.

1. Action: Continue the enhancement and development of the Volunteers in Police Service (VIPS) program within the Police Department.
2. Action: Develop VIPS management for community resource programs.

Goal 5: Survey and monitor best-practices in both the public and private sector.

1. Action: Network with communities throughout Arizona and the nation to learn about innovative practices in policing.
2. Action: Continue the development of the Police Citizen Advisory Commission.

Goal 6: Build partnerships and Intergovernmental agreements with other communities in the region where mutually beneficial solutions to coordinate in relations to police services and emergency incident response can be achieved.

1. Action: Contact contiguous agencies to identify needed avenues of cooperation, methods of improved sharing of information and operational needs related to police and security and regional disaster planning.

Goal 7: Proactively address the issue of annexation into Pinal County by forming partnerships with the Pinal County Sheriff's Department and the Pinal County Attorney's Office to anticipate new jurisdictional issues.

Goal 8: Provide exemplary external communications though enhanced website development, expansion of community resource programs to include Getting Arizona Involved in Neighborhoods (GAIN), Neighborhood Watch, and Homeowners Association (HOA), interaction and continued development of enhanced communications and interoperability with Pima County public safety agencies.

Goal 9: Provide necessary public safety services to ensure a safe environment through problem-solving, adaptability to change, cultural sensitivity and efficient allocation of resources.

The Building Safety Department:

Goal 1: Maintain and enforce nationally recognized building codes/standards to provide the highest levels of safety for its citizens and emergency personnel.

Goal 2: The town shall continue to hire, train, and retain knowledgeable and skillful personnel to serve the needs of its existing and future citizens.

Emergency Management/Homeland Security:

Emergency Management/Homeland Security is the responsibility of the Town of Marana in collaboration with federal, state, county, municipal and other emergency response agencies.

Goal 1: Provide the very best services in the areas of Fire Suppression, Emergency Management System (EMS), prevention and overall professional services for the communities that the District serves and protects.

a. Policy: Protect human life and property through public safety and emergency services.

1. Action: Marana Police Department in coordination with NWFD shall continue to conduct educational programs to enhance public safety knowledge.
2. Action: The Town shall maintain and enforce nationally recognized building and fire codes to provide the highest levels of safety for its citizens and firefighters.

b. Policy: Secure critical infrastructure and support services for a safe community.

1. Action: The Town will review and update, as necessary, its Emergency Operations Plan (EOP) to assure readiness and rapid response to man-made and natural threats.

Northwest Fire District

a. Policy: Improve Community Health, Safety & Satisfaction.

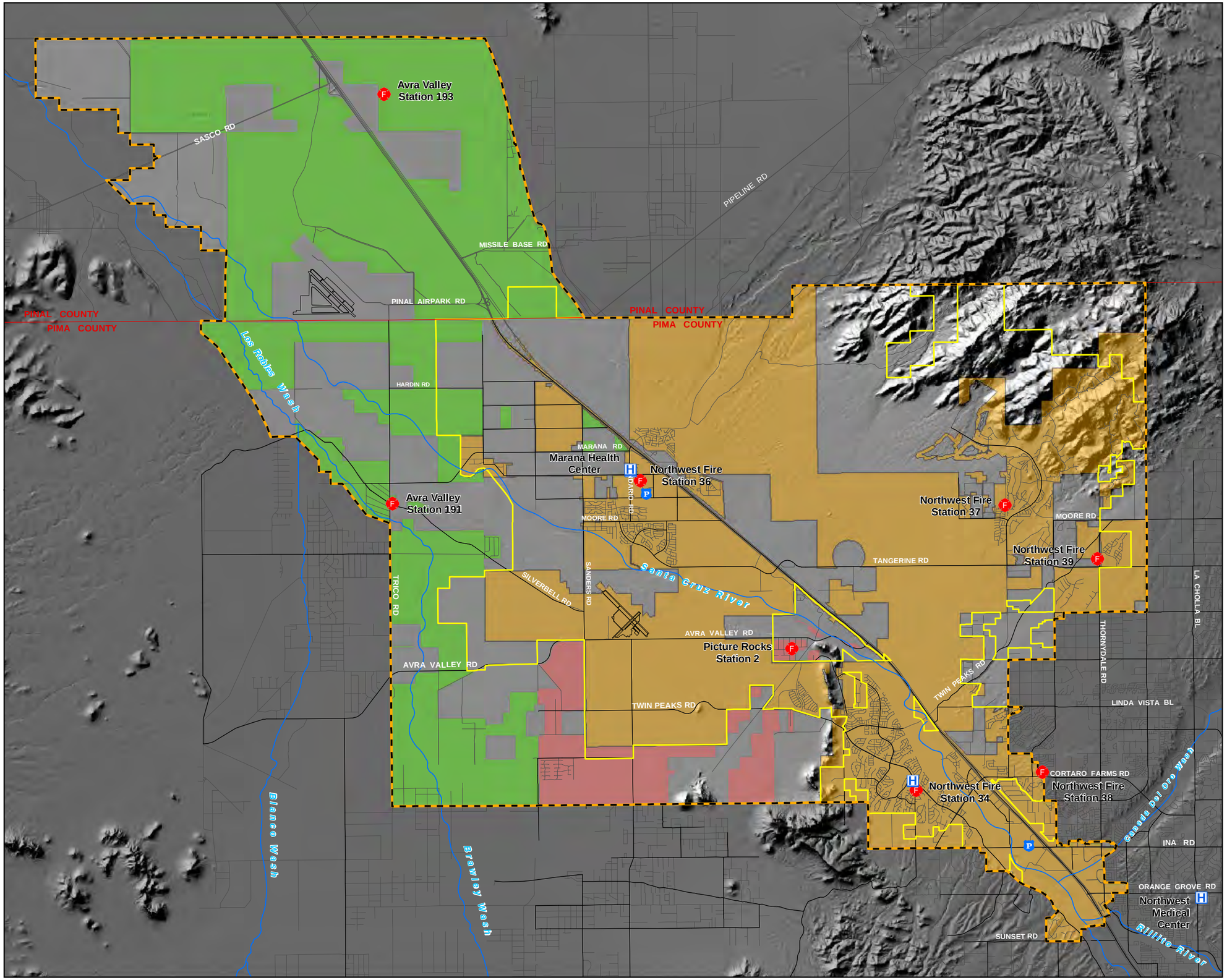
1. Action: Work towards improving the service to the community. This includes not only preventing incidents from occurring, but

when emergencies do occur the District is committed to getting there quickly, and handling the incident in an efficient and professional manner.

2. Action: Lessen the financial burden through increasing revenue sources and maximizing the efficiency of the funds provided.
3. Action: Commit to improving a "connection" with the community by not only getting the message out about who their District is, what the District does and that the District is standing ready to serve day or night, but actually getting out into the community and making personal connections with the people we serve.

b. Policy: Improve Response Capacity/Capability.

1. Action: Provide a quick and efficient response to any type of emergency will allow the NWFD to compete for future expansion of the fire district.



MARANA

2010 General Plan

7.1.A

Public Safety

- Fire Stations
- Marana Police Stations
- Medical Facilities

Fire Districts

- Avra Valley
- Northwest
- Picture Rocks
- Planning Area
- Marana Town Limits
- Pima County Boundary

N W E S

0 1 2 3 4 5

Miles

Data Disclaimer: The Town of Marana provides this map information "As Is" at the request of the user with the understanding that it is not guaranteed to be accurate, correct or complete and conclusions drawn from such information are the responsibility of the user. In no event shall The Town of Marana become liable to users of these data, or any other party, for any loss or direct, indirect, special, incidental, or consequential damages, including but not limited to time, money, or goodwill, arising from the use or modification of the data.

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7.2.1. Introduction

The Parks and Recreation Element is based on the 2010 Town of Marana Parks, Recreation, Trails and Open Space Master Plan. The Town of Marana recognizes that Parks and Recreation programs and facilities are essential community components. Quality recreation programs and well maintained park facilities contribute to an improved Quality of Life for residents and visitors. Business, industry, and new residents are drawn to communities with well developed programs and facilities.

The 2010 Town of Marana Parks, Recreation, Trails and Open Space Master Plan recognizes the Town's parks, recreation facilities, and programs as part of the Green Infrastructure that sustains Marana and is essential to contributing to quality of life. Marana's Green Infrastructure is made up of ecological, human, and sustainable assets. Ecological assets are the communities open spaces (see the Open Space/Trails Element). Human assets are the developed parks, recreation facilities, programs, and community events. Sustainable assets are operations and maintenance and financing. In the Green Infrastructure, the ecological assets (open space) are connected to the human assets (parks, recreation facilities and programs) by a highly developed trail and path system. Both are held together by the sustainable assets (operations/maintenance and financing) that manages and cares for the system. Like roads, utilities, water and sewer lines, Green Infrastructure is part of the lifeblood of Marana.

Marana's Parks and Recreation Department furthers the health, welfare, and economy of the Town. The role of parks and recreation systems are changing as they become advocates and leaders in community health and wellness. This role includes viewing parks and recreation systems as key players in a community's physical health and in the fight against youth and adult obesity.

The Parks and Recreation system supports the natural environment by creating parks that conserve valuable natural habitats, open spaces, views, and mitigating storm water. It promotes non-motorized transportation through a system of trails and pathways. The system fosters a sense of community and connectedness through special events that support artistic and cultural activities. It provides the opportunity to interpret natural and cultural resource sites and recognizes the Town's agricultural heritage at the Marana Heritage River Park Farm.

Aerial of the Marana's new 48 acre Crossroads at Silverbell Park. The park opened February 2010 and reflects the community's rich cultural and archaeological history and offers the latest in recreational amenities.

Planning Marana's Parks and Recreation system as Green Infrastructure allows the

system to:

- Contribute to the management, conservation and improvement of Marana's landscape.
- Contribute to the protection, conservation and management of historic landscapes, archaeological and built heritage assets.
- Support the Marana Draft Habitat Conservation Plan and maintain and enhance biodiversity.
- Create new recreation facilities, programs and park spaces necessary to maintain the quality of life for current and future residents.

7.2.2. Desired Outcomes

This Green Infrastructure definition allows Marana's natural and built recreation facilities and programs to be systems and networks supporting and enriching the social and natural environment. It protects and restores social connections, natural ecosystems and provides a framework for the future.

Marana's Green Infrastructure Parks and Recreation system contains ecological assets and human assets complimented by sustainable elements. Ecological Assets are those elements of the Town's Green Infrastructure supporting wildlife, providing an environment for natural processes and vegetation, and constituting scenic views and natural elements. Natural corridors such as rivers and washes connect all these elements. Marana's ecological assets are the open spaces within and around the town. These include the Santa Cruz River, Tortolita Fan, the Tucson, Silverbell, and Tortolita Mountains. Marana's ecological assets are positioned so that they connect to larger natural systems. Also included in these assets are the proposed wildlife linkages that connect the Tortolita Fan, Santa Cruz River and the Tucson Mountains. The Ironwood Forest National Monument and Saguaro National Park West are connected by the Santa Cruz River and its' floodplain weaving northeast towards Picacho Peak State Park and to the Catalina Mountains by the Canada del Oro Wash. The Santa Cruz River, Brawley, and Los Robles Washes are significant ecological assets alone. Maintaining appropriate connections between these ecological assets is a goal of this plan.

Human assets in the Parks and Recreation system are the places where people interact. They include parks and buildings which support the social network of Marana. Paths and trails connect human assets to one another and to ecological assets. They connect neighborhoods and social destinations. Marana's parks provide safe, well-maintained and pleasant locations for socializing, organized sports, fitness activities, and special events. Community centers provide permanent locations for programs, cultural arts, and gatherings. The Town provides a broad spectrum of recreation programs, events and services. These services weave the fabric for developing a strong sense of community reinforcing the quality of life in Marana. As

Marana grows providing adequate park acreage, facilities, and diverse recreational programs (human assets) properly connected by paths and trails are a goal of this plan.

Sustainable assets are the materials, operations practices, and management approaches used to maintain and implement the parks and recreation system. These include maintenance, administrative, program personnel, equipment, and financing methods the system requires. Providing sustainable assets appropriate to maintain the parks and recreation system is a goal of this plan. The 2010 Town of Marana Parks, Recreation, Trails and Open Space Master Plan contain information regarding the operations, maintenance, and financing options possible for the Marana Parks and Recreation system.

7.2.3. Existing Conditions

The Town of Marana's ecological assets include a remarkable network of public and private open space. To learn about these assets, see the Open Space and Trails Element of this plan. The Town of Marana's human assets include parks, recreation facilities, programs, and trails. These assets include public and private operated facilities and programs.

Parks

The Marana Parks, Recreation, Trails and Open Space Master Plan establishes five classes of parks. Each of these parks serves a distinct purpose. The following are categories and descriptions of Marana's parks:

- Neighborhood Parks
- Community Parks
- Regional Parks
- District Parks
- Special Purpose Parks

District, neighborhood, and proposed parks are depicted on the Parks and Trails Map on page 7.2.A. Existing Public Parks with acreage of each are listed in Figure 7.1.

Neighborhood Parks - typically 1 to 20 acre facilities serving users within a quarter mile circumference of the location, and are primarily privately owned and operated by homeowner associations. Currently Marana has 56 neighborhood parks with an approximate total land area of 72 acres. Of the 56 parks, four are owned by the Town of Marana. El Rio Park is located on the northern end of the Continental Ranch Master Planned Community and serves as a trailhead for the Santa Cruz River Shared-Use Path. Wade McLean Park is located at the southern end of Continental Ranch and is associated with Coyote Trails Elementary School. It also serves as a trailhead to the Santa Cruz Shared Use Path. Continental Reserve Park is located in the Continental

Reserve Master Planned Community and is associated with Rattlesnake Ridge Elementary School. In the future, the Pima Farms Trailhead will become the access point to Saguaro National Park West from Continental Reserve. The current neighborhood park service level is 2.1 acres of park per 1000 residents.

Community Parks - serve a one mile radius from the park. Passive and active recreation facilities are sited on a 10 to 40 acre park location. Community parks are operated by the Town, but generally constructed by private developers and deeded to the Town. The Town currently has 3 community parks totaling approximately 38 acres. Continental Ranch Community Park, Gladden Farms Community Park, and San Lucas Community Park are all located in master planned communities. Two were funded and built by private developers. In 2010 the Town provided 1.13 acres of community parks per 1000 residents.

District Parks - have a service radius of 2.5 miles. District parks are located on 40 – 80 acres and offer both passive and active recreation facilities. District parks in Marana are associated with specialized community centers. There are two district parks in Marana totaling approximately 82.7 acres. Ora Mae Harn Park is located in northern Marana west of I-10. The Marana Senior Center and Marana Pool are located at the park and the Pima County Geasa-Marana Branch Library is its neighbor. The Crossroads at Silverbell Park is Marana's newest district park. It is located in the southern part of Continental Ranch, west of I-10. The Wheeler Taft Abbett Library is located at the park as well as historic and pre-historic sites. The Town currently provides approximately 2.45 acres of district park per 1000 residents.

Figure 7.1 – Existing Public Parks

PARKS	ACRES
Ora Mae Harn Park	34.7
Continental Ranch Park	12
Continental Reserve Park	9.2
San Lucas Park	13.5
Gladden Farms Park	12.5
Wade McLean Park	4.9
El Rio Park	1.3
Crossroads at Silverbell	48.9
Private parks (excludes detention basins)	47.4*
Total	**184.4**
*Excludes Gladden Farms Detention Basis (21.96 acres) and Rancho Marana Detention Basin 4.18.	

Regional Parks - are larger than 80 acres in size and serve a radius of 5 miles from the park. Currently there are no regional parks in Marana and residents are served by Arthur Pack Regional Park operated by Pima County and located east of Marana and I-10. Marana has a cooperative agreement with the Bureau of Reclamation (BOR) to develop 500 acres of BOR land on Avra Valley Road southeast of the Marana Regional Airport.

Special Use Parks - are unique facilities that provide a specific function or feature a particular ecological asset. The Marana Heritage River Park located along the east bank of the Santa Cruz River in northern Marana interprets the area's rich history and cultural traditions. The park

area totals approximately 247 acres and includes the Marana Heritage Farm and a portion of the Santa Cruz Shared Use Path. Future plans include construction of a museum/visitor's center, exhibition space, natural resource center, and special event area. A large portion of the park will remain in a natural state and offer passive recreation activities.

Recreation Facilities

The Town of Marana maintains parks and recreation facilities by applying maintenance standards developed using the National Recreation and Parks Association and American Physical Plant Association models. At the time of this General Plan Update, the Town has sufficiently allocated appropriate resources to the maintenance of its parks and recreation facilities. These resources are allocated from the Town of Marana general fund.

Park construction and development is funded primarily through a Development Park Impact Fee adopted in 2005. The Park Impact Fee is indexed each year against the Engineering News Record, 20 City Construction Cost Index. At this update the Park Impact Fee is $3,471 per residential unit. Other sources of funding include Municipal Bond Funds, Pima County Bond Funds, and the Town's General Fund. The 2010 Town of Marana Parks, Recreation, Trails and Open Space Master Plan address various methods of funding for development of parks and facilities.

Programs

Recreation programs support the human assets of the Town's Green Infrastructure. The Town of Marana offers a wide array of recreation programs. The strength of the Town's programs includes youth activities, sports camps, traditional senior programs, special interest classes, community events and family-based programs. Recreation programs help build community, increase health and wellness, and drive the development of parks and recreation facilities. In Marana a lack of indoor recreation facilities affects the type and number of programs offered.

Marana supports special events that celebrate the history and culture of the area, national and local holidays, and provides opportunities for programs and activities that are outside the usual range of regular program offerings. The Town offers a wide variety of special events including community information fairs, concerts, monthly guided hikes, movies-in-the-park and festivals. Unique events include a community "camp out", adventure race, and events focused on local charitable causes. Community and special events contribute to quality of life by strengthening communities, providing unique activities and events, building awareness of diverse cultures and identities, and acting as a source of community pride.

Trails

The 2010 Town of Marana Parks, Recreation, Trails and Open Space Master Plan contain design and construction standards to guide the development of future private and public park development.

Both trails (unpaved) and paths (paved) exist in Marana. The trail and path system connect ecological assets to human assets. The combination of paths and trails provide a wide variety of both transportation and recreational use. Paved paths accommodate bicycles, long boards, roller blades, strollers, and wheel chairs. Unpaved trails are suited to equestrians, hikers, and runners. Pedestrians use both trails and paths. Paved paths maintained by the Town are located along the Santa Cruz River. Unpaved trails have been constructed in the Tortolita Mountains and Tortolita Preserve. Both paths and trails provide unique opportunities to interpret the area's culture, history, and natural resources. The 2010 Town of Marana Parks, Recreation, Trails and Open Space Master Plan contains path and trail construction standards and details, and a map of future path and trail locations to guide future private and public development. See the Open Space and Trails Element and Transportation Element for more information on paths and trails in Marana.

7.2.4. Current, Proposed, or Newly Completed Projects

The 2010 Town of Marana Parks, Recreation, Trails and Open Space Master Plan recognizes Town of Marana parks, recreation facilities, and programs as the Green Infrastructure that sustains Marana and is essential to community life. Major topics addressed by the plan include new parks and facilities, trail connectivity, park and trail types and standards, recreation programs and fee philosophy, and financing maintenance and operations and new developments. The master plan recognizes how the Town of Marana parks and recreation system provides critical operational and quality of life services for residents and in addition defines goals, policies, and action strategies for facilities and programs.

The Town of Marana and the Bureau of Reclamation continue to work toward the development of a 500 acre park site southeast of the Marana Regional Airport on Avra Valley Road on Bureau of Reclamation property adjacent to the Central Arizona Project Canal. The park is planned to feature regional sports facilities, a special use area, trail connectivity, natural open space and habitat.

A new trailhead is designed for the Tortolita Mountains trail system. The property has been dedicated to the Town by the developer, and Pima County park bonds will finance development. New trails and trail extensions are underway in the Tortolita Mountains. Trailheads, existing and proposed trails are shown on the Parks and Trails Map on page 7.2.A. The Town is committed to connecting the Santa Cruz River Multi-

Use Path from Coyote Trails Elementary School to the new Crossroads at Silverbell District Park, as well as defining a path connection from northern Marana around the Arizona Portland Cement property south to Continental Ranch.

7.2.5. Opportunities and Challenges

Defining the Town of Marana Parks and Recreation system as Green Infrastructure presents the opportunity to connect the Towns undeveloped ecological assets to its developed human assets and manage both in a sustainable matter. In order for this to happen, areas of open space and linkages must be preserved. Along with providing open space, adequate buffer space and linkages must be encouraged.

Agriculture is a strong part of Marana's culture and heritage. The Marana Heritage Farm also provides an opportunity for locally grown produce that offers a nutritious and healthy alternative to mass produced, processed foodstuffs shipped in from far away. Providing opportunities for local agriculture through farmers' markets in Marana's park system could support small niche farm operations adding to the Town's open space.

The Town of Marana insures the development of private neighborhood parks through land dedications required as part of the entitlement process. This has resulted in neighborhood parks being located within walking distance of most residences. The Development Park Impact Fee has encouraged the development of public community parks in large master planned communities. There are no similar processes for obtaining public district park acreage. Policies and ordinances should be implemented to enable the funding and development of district parks.

Reconstruction of existing roadways and interchanges along with construction of the new Twin Peaks interchange and associated road ways will enhance the east-west path and trail connectivity between ecological and human assets across I-10 and the Union Pacific Railroad. Even with improved interchanges along the I-10, the freeway corridor still presents a significant barrier. Paths and/or trails paralleling both sides of the freeway would provide convenient routes to these limited crossings, as well as make the corridor truly multi-modal.

Creating paths and trails that convey the historic and cultural character of key corridors can help celebrate the Town and identify regional trail segments as distinct to Marana. Designing trails that interpret their historic relevance, the cultural significance of the areas through which they pass, and that celebrate the natural resources and views turn trails into destinations. This can contribute to the Town's strategic goal of becoming a recreation capital as well as promote the relevance and

meaning of the Town's Green Infrastructure to its residents and visitors. The challenge is that large and relatively fast development often occurs with out regard to the Town's culture and history.

The Town of Marana's Parks and Recreation Department adopted three Quality of Life directives to provide a focus for decisions regarding recreation programs and services. These quality of life directives are: health and wellness, arts, and community. The Town's programming efforts should focus on these three areas. Funding and budget limits prevent the Parks and Recreation Department from being all things to all people. Determining a focus for programs can reduce costs through the elimination of low demand programs not critical to the Town's mission, reduce capital costs for facilities, and allow the Town to focus its funds and energies on a quality suite of recreation program offerings.

Maintenance is the key to longevity and function of the Town's Green Infrastructure. Poorly maintained parks and facilities are less desirable, less used, and less valuable to the Town. The existing park maintenance facilities are located in northern and southern Marana on the west side of I-10 and the Union Pacific Railroad. As the Town's Green Infrastructure expands as the Town grows additional facilities and equipment will be needed. The cost of building and equipping satellite maintenance facilities should be included in the Town's park development funding mechanisms. Early planning for future maintenance facilities ensures the Town is able to efficiently and effectively manage long-term maintenance and upkeep.

7.2.6. Issues Identification and Trends

Parks and Recreation programs and facilities are widely recognized as essential community components. Well run programs enrich citizen social and educational life; a diverse selection of well maintained parks and recreation facilities attract new and create a high quality of life for current residents. Special events attract visitors and enhance community revenues.

The Town of Marana will continue to grow and new housing and business developments will be designed and implemented. The process of securing private neighborhood and public community parks is sound and can continue with minor modifications. The need for large district parks, particularly east of the I-10/Union Pacific Railroad, is more immediate. Alternative methods of securing property and development funding will be required to make larger park development possible.

Marana views itself as a community to live, work, and play. As employment and educational opportunities are created closer to where residents live, the importance of linking the Green Infrastructure's ecological and human assets with those economic and educational centers by a series of paths and trails increases. Providing the incentive for residents to use non-motorized methods of transportation raises the health, wellness and quality of life for the community. Easements and linkages between the various assets must be guaranteed so that a highly developed path/trail system is possible.

Open space is the base of the Green Infrastructure system. As development continues, Marana's unprotected open space will be built over and areas available for open space, parks and trails will increase in value and be more difficult to obtain. It is imperative that a sustainable open space plan be developed (see Open Space and Trails Element). Securing and protecting open space enables the Town's Green Infrastructure and guarantees a Quality of Life passed over in many other communities.

7.2.7. Strategic Direction

The Town of Marana 2010 Town of Marana Parks, Recreation, Trails and Open Space Master Plan was being developed as the Town of Marana Strategic Plan (2009) was being written and adopted. As a result, the master plan implements the Strategic Plan Focus Areas with its goals and action strategies. Giving status to the concept of Green Infrastructure, the Town's strategy requires continued support and contribution to enhancing the high quality of life envisioned by Marana's residents and outlined in the Marana Strategic Plan.

The environmental elements associated with the ecological assets of the Town's Green Infrastructure move the Strategic Plan Heritage and Recreation Focus Areas forward through the wise conservation of open spaces and historic trails. Goals and strategies that promote programs to educate residents and visitors about the agricultural heritage and pre-history of the Town address the need to link the past, present, and future.

The Strategic Plan's Commerce and Community Building focus areas are supported by recreation programs and special events that are attractive to residents and visitors. Conservation of open space and natural areas supports these two focus areas by attracting residents and visitors and providing settings for premier resorts and developments.

The Progress and Innovation focus area is addressed through goals and strategies that promote the conservation of environmental and financial resources through efficient and appropriate administration and maintenance.

7.2.8. Goals, Policies, and Actions

Open Space and Trails Goals, Policies, and Actions can be found in the Open Space and Trails Element.

Goal 1: Provide a system of developed parks and recreational facilities throughout the community.

a. Policy 1: Continue implementation of recommendations in the Town of Marana 2010 Town of Marana Parks, Recreation, Trails and Open Space Master Plan.

   1. Action: Implement park and recreation facility use standards tailored to the unique requirements and needs for Marana as defined in the 2010 Town of Marana Parks, Recreation, Trails and Open Space Master Plan.

   2. Action: Implement District Parks, Community Parks, and Neighborhood Parks to meet standards as defined in the 2010 Town of Marana Parks, Recreation, Trails and Open Space Master Plan.

   3. Action: Implement linear parks that provide connections between the green infrastructure elements and other destinations within and adjacent to the Town.

b. Policy: Utilize public and private funding to meet the recreational needs of current and future residents.

   1. Action: Identify potential public and private funding sources using strategies provided in the 2010 Town of Marana Parks, Recreation, Trails and Open Space Master Plan.

   2. Action: Support park development with annual review of park impact fees, exactions, and park dedications from developers as appropriate.

c. Policy: Support the development of recreational facilities in new residential areas.

   1. Action: Require neighborhood parks in all new residential developments following standards described in the 2010 Town of Marana Parks, Recreation, Trails and Open Space Master Plan.

2. Action: Require path/trail easements and constructed elements to link neighborhood parks with residences, schools, and the public path/trail system.

d. Policy: Encourage joint-use agreements for recreational facilities constructed on school campuses or other properties made available for public use.

1. Action: Identify opportunities for joint use facilities as new schools are constructed.
2. Action: Develop agreements for joint funding of construction and/or maintenance of joint-use facilities by the Town and/or school districts.
3. Action: Continue to work regionally with other entities and jurisdictions for combining resources and jointly using facilities.
4. Action: Continue to pursue development of Bureau of Reclamation property east of Marana Regional Airport as a sports complex and possible equestrian/rodeo center.

e. Policy: Indentify opportunities for special use parks and facilities.

1. Action: Develop plans for special use parks and diverse recreational facilities as identified in the 2010 Town of Marana Parks, Recreation, Trails and Open Space Master Plan.
2. Action: Develop special facilities in recreational open space areas for wildlife viewing, birding, and natural resource appreciation.
3. Action: Use neighborhood, community, district, regional parks, paths/trails, and open space areas as opportunities to interpret Marana's rich cultural past, pre-history, and natural resources.
4. Action: Identify areas for motorized Off Highway Vehicle Use within Pinal or Pima County that are accessible and available to Marana residents.
5. Action: Work with neighboring jurisdictions, associated agencies, and private sector to identify and develop a shooting range facility convenient to Marana residents.
6. Action: Provide accessible parks, paths/trails, and facilities that allow physically and visually impaired individuals to recreate outdoors and enjoy the Sonoran desert environment.

f. Policy: Work closely with the Parks and Recreation Citizen Advisory Commission on park and recreation issues, including;

1. Action: Prioritize goals, policies, and action strategies provided in the 2010 Town of Marana Parks, Recreation, Trails and Open Space Master Plan.

2. Action: Revisit revenue policies to set fees and tract costs for recreation programs as identified in 2010 Town of Marana Parks, Recreation, Trails and Open Space Master Plan.
3. Action: Assist in establishing a not for profit, advocacy "Friends of Marana Parks" group to augment park programs, provide volunteers, seek funding sources for parks and programs.
4. Action: Coordinate efforts with the Marana Heritage Conservancy to engage community members in the research, recognition, appreciation, preservation and enhancement of the Town of Marana's rich cultural heritage and to promote the Marana Heritage River Park.

Goal 2: Provide a comprehensive offering of recreation programs and services for the citizens of Marana.

a. Policy: Continue to develop new programs particularly where services are not currently offered.

1. Action: Collaborate and partner with other providers to offer more programs in underserved areas.
2. Action: Prioritize and begin implementation of goals, policies, and action strategies presented in 2010 Town of Marana Parks, Recreation, Trails and Open Space Master Plan regarding recreation programs.

Goal 3: Provide regularly scheduled maintenance and repair for all parks and recreation facilities.

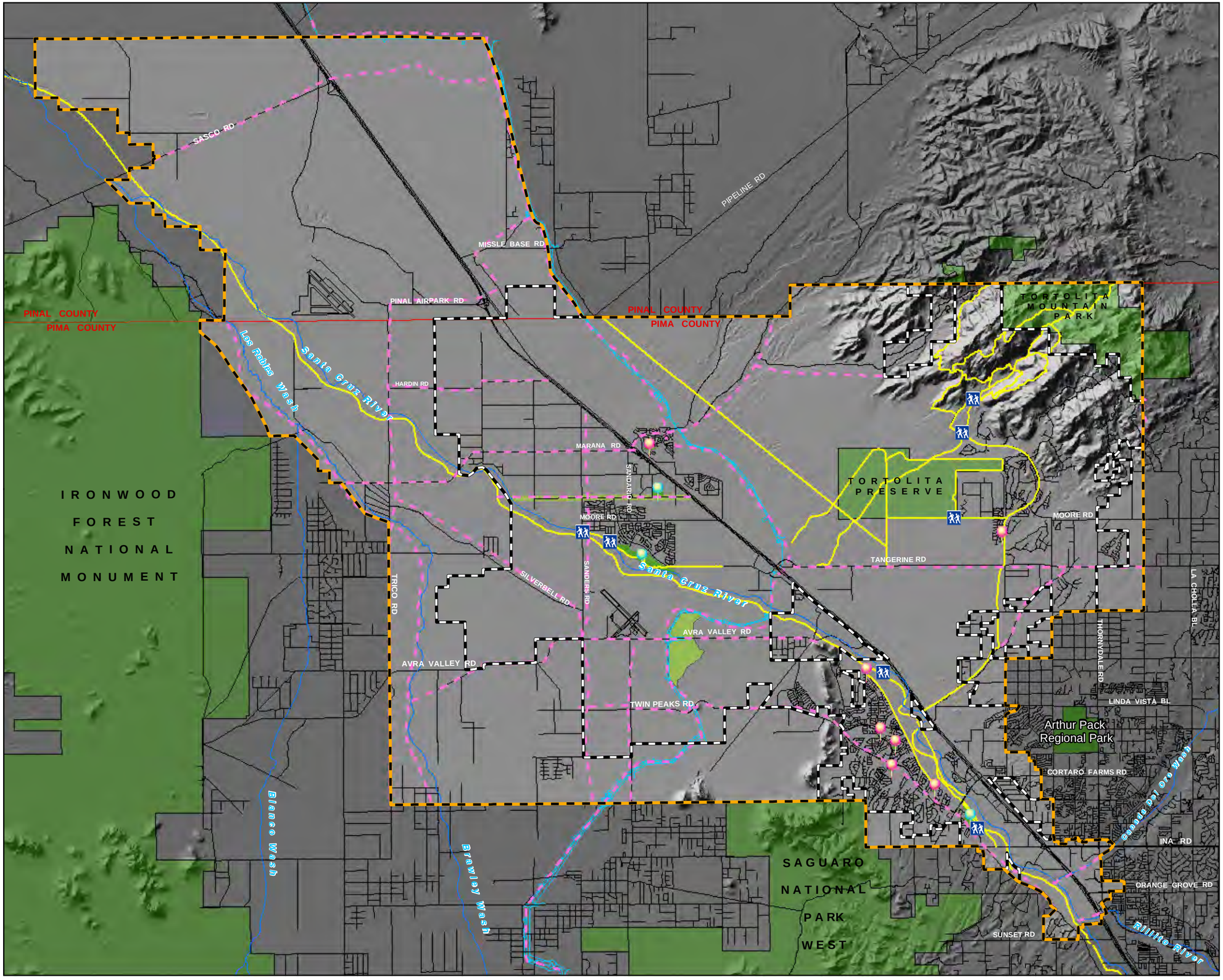
a. Policy: Maintain all parks and recreation facilities according to developed standards referenced in the 2010 Town of Marana Parks, Recreation, Trails and Open Space Master Plan.

1. Action: Maintain all public parks and recreation facilities according to the appropriate standard as defined in the 2010 Town of Marana Parks, Recreation, Trails and Open Space Master Plan.
2. Action: Require Homeowner's Associations to maintain private recreation facilities (neighborhood parks) to the appropriate standard as defined in the 2010 Town of Marana Parks, Recreation, Trails and Open Space Master Plan. Perform periodic inspections on privately owned recreation facilities to ensure compliance.
3. Action: Maintain public paths and trails according to the appropriate standard as defined in the 2010 Town of Marana Parks, Recreation, Trails and Open Space Master Plan.

4. Action: Require Homeowner's Associations to maintain path and trail systems to the appropriate standard as defined in the 2010 Town of Marana Parks, Recreation, Trails and Open Space Master Plan. Periodically inspect paths and trails to ensure compliance.

b. Policy: Identify a preliminary budget for the maintenance of all facilities.

1. Action: As part of the design process for all publicly maintained parks and recreation facilities, require a maintenance plan and budget to be provided as part of the initial design.
2. Action: As a component of the design and development of parks to be dedicated to the Town, require that they be built to Town of Marana standards and a maintenance plan and estimate of annual maintenance costs be prepared.



MARANA

2010 General Plan

7.2.A Parks and Trails

- Trailheads
- Existing Trails
- Proposed Trails
- Proposed Parks
- District Parks
- Neighborhood Parks
- CAP Canal
- Planning Area
- Marana Town Limits
- Pima/Pinal County Boundary

N W E S

0 1 2 3 4 5

Miles

Data Disclaimer: The Town of Marana provides this map information "As Is" at the request of the user with the understanding that it is not guaranteed to be accurate, correct or complete and conclusions drawn from such information are the responsibility of the user. In no event shall The Town of Marana become liable to users of these data, or any other party, for any loss or direct, indirect, special, incidental, or consequential damages, including but not limited to time, money, or goodwill, arising from the use or modification of the data.

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7.3.1. Introduction

The focus of Marana's economic development is the creation, retention and expansion of sustainable, head-of-household-wage jobs.

Although the Town of Marana does not assess a municipal property tax and nearly two thirds of its revenues are derived from transaction privilege (sales) taxes, the community has recognized that retail and entertainment venues, while beneficial and welcome, largely evolve on their own and do not require a significant investment of Town resources. The attraction, retention and expansion of major employers, conversely, requires a significant commitment of Town resources and are critical to maintain the community's quality of life during regular variances in consumer spending.

7.3.2. Background

The information provided in this element is based largely on previous plans for economic development: The Marana Economic Roadmap, the Marana Strategic Plan, the Marana Regional Airport Master plan, and a variety of regional and local studies and strategic plans.

The Marana Economic Roadmap is the Town of Marana's strategic plan for economic development. It was developed in 2009-2010 by a stakeholder group representing over 20 regional organizations and business partners. The Roadmap was adopted by the Marana Town Council on March 2, 1010. The Roadmap contains three sections: Target Industries, Economic Activity Centers (Map on page 7.3.A) and Focus areas.

Target Industries

Existing Opportunities
Transportation Logistics
Tourism & Visitor Experience
Regional Industry Cluster Support

Emerging Opportunities
Environmental Technology
Bioscience & Medical Sciences

Economic Activity Centers

Downtown Activity Center
Heritage Activity Center
Dove Mountain Activity Center
Tangerine Road/I-10 Activity Center
Tangerine Corridor Activity Center
Airport Activity Center
South Marana Activity Center
Twin Peaks Activity Center
Transportation Logistics Zone Activity Center

Focus Areas

Business Attraction, Retention & Expansion
Resource/Business Support
Workforce Development
Tourism & Visitor Experience
Community & Infrastructure Development

7.3.3. Desired Outcomes

The following describes the perceived economic characteristics of Marana if the community is successful in implementing the Roadmap. These desired future conditions were not only used in the development of the Roadmap goals, but will also be used to measure success.

- Connectivity and accessibility between quality jobs and residential areas.
- Education drives the economy and produces a strong labor pool.
- A multi-generational and diverse community provides opportunities for all stages of life.
- Marana is recognized as a premier destination.
- The Marana Regional Airport is a focal point of the economy.
- Marana continues to have a clear vision and sense of place.
- Marana has an economic identity and reputation for supporting business.
- Marana's economy is diverse and not dependent on one business sector.
- Marana has taken full advantage of its transportation assets.

7.3.4. Existing Conditions

Marana's economy is diverse and includes employers in retail, transportation and logistics, hospitality and tourism, mining, aerospace and defense, optics, education, manufacturing and governmental services. The Town has three established population centers: North Marana, the Continental Ranch area, and the Dove Mountain. Overall, Marana's population has grown at a rate of approximately 154.2 percent since 2000, leading to significant changes in employment and consumer spending.

North Marana Area

While still developing north Marana is considered to possess great potential, largely because of its extensive open space and agricultural land, which someday may be preserved to reflect the cultural past or developed into employment centers. Current employment opportunities in this area are limited, and tend to be clustered around the Marana Unified School District (MUSD) headquarters, Marana Municipal Complex or in nearby homebuilding or government. The largest employer in north Marana is the Marana Unified School District with approximately 1,800 employees, followed by the Town of Marana with approximately 300 employees. North of the Town limits is the Evergreen Maintenance Center at Pinal Airpark, which employs approximately 400 individuals from the Marana, Metropolitan Tucson and Pinal County. There is a minimal amount of retail commercial activity in this area, with considerably more planned for the future as the population increases.

Continental Ranch Area

The Continental Ranch area and nearby "golden triangle" area along Thornydale, Ina and Orange Grove roads is the commercial center of Marana. Major retail outlets, including Costco, Target, Home Depot and Lowe's, are the main generators of transaction privilege tax revenues for the Town and have contributed to an active business community on

Ina and Orange Grove roads east of Interstate 10. This area is nearly built-out and most future projects will be related to redevelopment and/or infill.

The Arizona Pavilions development, located on Cortaro Road west of Interstate 10, is another growing retail and hospitality area that serves as a key revenue generator for the Town. South of Cortaro Road along Arizona Pavilions Drive/Business Park Drive is Marana's only business park and the leading source of high-wage jobs for the community. Corporate subsidiaries such as Sargent Aerospace and Defense, FLSmidth Krebs, Lasertel, Tusonix and Coca-Cola together provide over 500 jobs for area residents, with several of these businesses expanding dramatically in the past decade. These join a small number of locally-owned companies, including Alicat Scientific and KD Engineering/METCON Research, in comprising most of Marana's current industry base.

Dove Mountain Area

The Dove Mountain area has become known in recent years for its "high-end feel," leading to what will likely be a tourism-based sub-economy. The chief driver of this concept has been the Ritz-Carlton, Dove Mountain Resort and Spa, which opened in December 2009. The area around the resort is comprised of various housing types, ranging from entry-level units to multi-million dollar custom homes. Retail commercial is limited in the area at this time, although it will develop further as additional hotels and homes are constructed in the area.

7.3.5. Current, Proposed or Newly Completed Projects

In-Progress

The Twin Peaks Road extension and Twin Peaks/I-10 freeway interchange will create access and provide infrastructure to new areas previously unavailable for development. Related to this, Tangerine Road, from Thornydale Road to I-10, is currently in design for the expansion of up to six lanes which will facilitate the expected growth in three activity centers in the region:

1. The Tangerine Road I-10 Activity Center;
2. The Tangerine Corridor Activity Center;
3. The Dove Mountain Activity Center.

The new Tangerine Road will eventually connect to a fully planned, new Tangerine/I-10 Freeway interchange. These roadway projects will allow for the capacity necessary for future growth in the area as well as provide better circulation and connectivity in the community including access to the Town of Oro Valley.

At the Marana Regional Airport, a focal point of the future local economy, continual upgrading and expansion of the facility has added value to the airport and to the Town's ability to attract commerce. The recent addition of road and utility infrastructure in the 1-10 acres directly east of the airport will attract new businesses

to the Town others will be attracted to the airport because of its business-class jet capabilities, convenient location and access for business or pleasure.

New infrastructure construction and business activity has increased in the established, southern portion of Marana. The Peppertree Ranch Business Park has experienced the expansion and/or addition of manufacturing firms such as FLSmidth Krebs and Alicat Scientific. These companies are target industries identified in the Roadmap and are important to the Town for providing quality employment opportunities and attracting similar businesses.

Thornydale Road, south of Ina Road to the Orange Grove Road intersection has been reconstructed and widened to accommodate the existing and future traffic volume as well as improved access to local businesses such as Costco, Home Depot and other businesses. The retail activity in this area is critical to Marana's economy.

Recently Completed

A new Ritz-Carlton community has recently been constructed which includes a 250-room Ritz-Carlton resort hotel and spa, golf club and a Ritz-Carlton branded residential community encompassing 850 acres within the Dove Mountain master-planned development. Guests can experience the desert lifestyle and everything that Marana has to offer while attracting prospective new businesses and business owners who are exposed to our community. The Ritz-Carlton project is meant to be the ultimate in luxury vacationing as well as luxury living as it sets the standard for tourism and the visitor experience in the region. Since 2007, Marana has also hosted the Professional Golfers' Association (PGA) Tour World Golf Championship (WGC) Accenture Match Play golf tournament, which annually attracts thousands of visitors to the Dove Mountain area and provides nationwide media coverage of Marana.

Proposed

In order to achieve successful economic growth, the *Marana Economic Roadmap* identifies nine economic activity centers, each having its own set of opportunities and challenges due to the unique characteristics within the Marana Planning Area. This level of comprehensive planning allows the Town to focus its investment and resources on creating a variety of unique places that will attract commerce and economic activities. The intent of the activity center concept is to target specific businesses or encourage appropriate types of development to locate in a specific activity center. The ultimate outcome is the ability for Marana to create a well-rounded community with appropriate locations to support a variety of economic development opportunities that are compatible with surrounding land uses and have

the necessary infrastructure support. The nine economic activity centers are located throughout the town (see Economic Activity Centers Map on page 7.3.A) and are identified in the below list. A description of each activity center is located in the Appendix.

1: Heritage Activity Center
2: Dove Mountain Activity Center
3: Tangerine Road I-10 Activity Center
4: Tangerine Corridor Activity Center
5: Airport Activity Center
6: Downtown Activity Center
7: South Marana Activity Center
8: Twin Peaks Activity Center
9: Transportation Logistics Zone Activity Center

7.3.6. Opportunities & Challenges

The Marana Economic Roadmap planning process included a comprehensive SWOT analysis. The analysis is intended to direct and impact strategy development by evaluating Marana in relationship to its community strengths (S), weaknesses (W), opportunities (O) and threats (T). The SWOT analysis, created by Albert Humphrey, provides information that is helpful in matching the community's resources and capabilities to the environment in which it operates. The analysis determines issues to build upon (strengths and opportunities) and issues that need to be addressed (weaknesses and threats). Strengths and weaknesses are considered "internal," or those items that Marana has some direct control over, while opportunities and threats are "external," or those that the community does not have control over but must recognize and respond to or position the community to either minimize impact of the threat or take advantage of the opportunity.

The analysis considered Marana's attributes including existing assets, natural resources, current business climate, and demographics, such as educational attainment levels of workers in the region. Additionally, existing infrastructures (physical, virtual, governmental, and educational) and cultural nuances (collaboration, innovation, and entrepreneurship) that will be critical to success were evaluated.

To be consistent with the format of the Marana 2010 General Plan, Internal strengths and weakness have be renamed Internal Opportunities and Internal Challenges; External strengths and weakness have be renamed External Opportunities and External Challenges.

Marana has benefitted in recent years from a strong culture of strategic planning, including the Marana Strategic Plan, Marana Economic Roadmap; Parks, Recreation Trails, and Open Space Master Plan, Marana Regional Airport Master Plan, and other similar documents. These projects have led to a "vision-based" community and

economy with professional, business-friendly staff and processes. As a newer community which recently underwent rapid population growth and urbanization, Marana also benefits from new, high-quality infrastructure and has invested substantially in the maintenance and aesthetics of its assets. The Town also benefits from its proximity to major transportation amenities, brought about by and large an aggressive annexation policy that lasted throughout the 1990s and early 2000s.

Internal Challenges

In general, Marana lacks the "community identity" attributed to other, more mature communities, largely because it developed through annexations rather than by growing outward from a community center. This process has created three distinct population centers which frequently have little in common and little interest in investing in a shared Marana vision. Parts of the community even remain under a "Tucson" address, which leads many residents and businesses to assume that they are not located in the Town of Marana. Additionally, the Town is heavily reliant on transaction privilege (sales) tax to fund the majority of its operations. This source of income has suffered recently due to the worldwide recession and has jeopardized the timetable for some major capital investments Marana will need to make to continue to attract quality jobs.

Marana contains nearly 20 miles of frontage along I-10, with more potentially available for future annexation northwest into Pinal County. In general, the Pinal County area, especially the Pinal Air Park with its proximity to transportation amenities, represents a tremendous opportunity for Marana in future job creation and development. Marana has also only just begun to benefit from the opening of the Ritz-Carlton, Dove Mountain resort, spa and golf facilities, which along with the PGA Tour Accenture Match Play golf tournament have helped to create an identity and marketing venue for Marana as a tourism destination. Continued development of recreational amenities, leveraging regional, state and national partnerships, will be increasingly important in future years as Marana's tourism market grows.

External Challenges

Marana has several major challenges to overcome in coming years. Chief among these is resolution of infrastructure issues with neighboring local governments, which currently hampers Marana's economic development efforts and adds a dimension of uncertainty to undertaking any project within the town limits. Additionally, the Town has very few land assets to use for economic development projects, and the majority of land in Marana is presently owned by the State of Arizona and managed by the

Arizona State Land Department (ASLD). This ownership situation adds an additional layer of uncertainty to future development.

7.3.7. Issue Identification and Trends

The importance of building a diverse and vibrant economy in Marana cannot be overstated. Without importing wealth and revenues into the community with the ability to retain them, the Town's aspirations for the future will not be met. This can be explained as creating a "basic" and "non-basic" balanced economy.

Basic and Non-Basic Economies

Basic economic activity brings new dollars into the community. This activity can come in a wide range of forms, from a tourist staying at a local hotel to a manufactured product made in Marana being sold to a business half-way around the world. In either case, money has come into the community that was not there before which creates jobs and wealth. Non-basic activity is the process of keeping dollars already in the local economy in Marana. The longer that dollar stays in the local economy, the more jobs and businesses it creates and maintains.

Since Marana depends heavily on locally generated sales tax revenues to provide infrastructure, amenities, and services, local basic and non-basic economic activity is critical. Some activities can be both basic and non-basic in nature and occur

simultaneously. In any case, it is necessary for Marana to have a balance of both activities to achieve economic success.

Quality of Life

In addition to the basic and non-basic economics, there are numerous quality of life issues affected by the local economy. Creating jobs close to where Marana residents live will be even more important in the future. The Sun Corridor is expected to contain over 10 million people by the year 2030 and moving people and goods will be ever more challenging and expensive. Having a full service community will reduce commute times and costs, allowing Marana's residents to spend more time enjoying their families and community, which keep more dollars here. Shorter commute distances will also positively impact air quality.

Career-oriented employment in Marana

Creating career-oriented employment will help Marana's residents stay in the community as their skills grow. A non-transient population provides a sense of permanence that successful communities strive for.

Transportation, Distribution, and Logistics

Transportation, distribution, and logistics is a broad industry sector responsible for managing the flow of goods, information, and people between a point of origin and a point of consumption in order to meet the requirements of consumers. Major sub-sectors within the industry include air, rail, water, and truck transportation, urban transit and ground passenger transportation, warehousing and storage, and motor vehicle repair. Logistics involve the integration of these sub sectors, including information, transportation, inventory, warehousing, material-handling, and packaging.

In all, transportation, distribution, and logistics contain 30 sub-sectors engaged in the movement of goods, information, and people. Nationwide, 4.5% of firms fall into transportation, distribution, and logistics, while the sector accounts for 4.5% of employment and 4.1% of wages. Truck transportation makes up the largest percentage of employment (28.0%), followed by automotive repair and maintenance (17.4%), warehousing and storage (12.4%), couriers and messengers (11.3%), support activities for transportation such as ports, airport, and cargo handling (11.2%), and air transportation (9.5%).

The transportation, distribution, and logistics industry contributes to about 5.1 million jobs in the U.S. economy and makes up more than 380,000 establishments with $198 billion in wages. The U.S. Bureau of Labor Statistics projects employment in the industry to expand by 1.1% annually between 2006 and 2016, with automotive repair increasing 2.1% annually and support activities for transportation increasing 1.6% annually. Factors contributing to industry growth include globalization and continued growth in the importation of products produced overseas. Technologies such as electronic data interchange that allow better tracking of product information, and radio frequency identification that streamlines the distribution process will continue to transform the transportation, distribution, and

7.3.8. Strategic Direction

The identification and support of the five strategic initiatives provide direction for Marana to attract the right kind of jobs and commerce. In addition to the Town's efforts, many other entities play key roles in providing information, support, knowledge and expertise to support the long-term goals of making Marana a healthy and viable community. The five strategic initiatives are:

1. *Resource/Business Support*- Marana wants to be known as the region's leader in pro-active business partnering. To attain this, the Town will need to establish a reputation for providing superior services, support, and assistance and be able to partner with businesses to find innovative solutions to complex issues and challenges.

2. *Business Attraction, Retention, and Expansion*- While pursuing new businesses to locate in Marana is an important part of the overall strategy; it is much easier and economical to help existing firms expand and create jobs than to compete to attract new firms

3. *Workforce Development*- The goal is for Marana to work with local and regional partners to maintain a highly qualified and diversified workforce tailored to target industries and local business activities.

4. *Tourism and Visitor Experience*- Attracting tourists and visitors to Marana is critical to the local economy. They bring basic dollars to the community without having to provide full time infrastructure and services.

5. *Community and Infrastructure Development*- Basic infrastructure and services are expected by business and without them the community is at a disadvantage. Marana's goal is to provide quality services to support economic development efforts.

7.3.9. Goals, Policies and Actions

Economic Vitality goals of the Town include attracting and supporting the business community while strengthening the Town's assets for its current and future citizens. The Town must promote its own identification that distinguishes itself from the rest of the region so that its businesses and industries may thrive.

The overall goal of this plan element is to integrate the *Economic Roadmap* into the General Plan in order that vision, goals, and initiatives will be shared. Goals, policies, and actions for this element are outlined below. A summary table of Economic Vitality Goals, Policies, Actions, Responsible parties, and Implementation time frames are included in the *Economic Roadmap* Plan.

Goal 1: Bring new businesses and jobs to Marana while supporting the existing base of sustainable and thriving firms.

a. Policy: Develop and implement basic tools to market the community and provide assistance to existing businesses.

    1. Action: Work collaboratively and explore partnership opportunities with other regional entities for business attraction.
    2. Action: Develop a community brand and marketing plan for business attraction, retention and expansion.
    3. Action: Develop and implement a formal business retention and expansion program.

b. Policy: Create a culture that encourages local businesses to be involved in community initiatives and events.

    1. Action: Maintain an aggressive communications and promotion program with local businesses.
    2. Action: Develop an approach to attract corporate headquarters to Marana.

c. Policy: Identify and enhance a variety of places to locate new businesses.

    1. Action: Work with the local real estate community to maintain a current database of available sites and buildings for locating companies.
    2. Action: Devise and implement a Town land acquisition strategy to provide key locations that may facilitate appropriate business development projects.
    3. Action: Comprehensively plan the nine identified Activity Centers to accommodate new and expanding businesses.

4. Action: Perform cost/benefit analyses to explore the feasibility of annexing areas within Economic Activity Centers that are not in the Town's municipal boundaries. Work with regional partners to implement annexation procedures if deemed appropriate.

d. Policy: Maximize economic opportunities presented by the community's major transportation infrastructure (Interstate 10, railroad and airports) to attract business and jobs.

1. Action: Ensure long term viability of the Marana Airport through infrastructure investment, land use planning, appropriate zoning decisions and promotion to prospective developers that may be influenced by airport operations.
2. Action: Work closely with regional partners (e.g., Union Pacific Railroad, Arizona Department of Transportation, Regional Transportation Authority) to upgrade transportation facilities and improve regional connections.
3. Action: Through the General Plan, identify large parcels of land to develop Transportation Logistics types of projects.
4. Action: Develop a Transportation Logistics marketing plan.
5. Action: Develop an intermodal strategy that integrates the movement of goods and people (i.e. ground, rail and air).

e. Policy: Provide maximize economic opportunities to attract business suppliers to support regional industries.

1. Action: Interview existing regional businesses to understand supplier and service needs that are currently being outsourced to other regions. The result of these interviews will be an analysis identifying service and supply chain gaps.
2. Action: Develop a Regional Industry Cluster Support recruitment strategy.

Goal 2: Focus Area - Resource/Business Support. Position Marana as the region's leading, proactive business partner.

a. Policy: Maintain policies, resources and tools that promote economic development.

1. Action: Maintain equitable and business-friendly tax policies to balance competitiveness with revenue generation.
2. Action: Maintain a streamlined development review and approval process, including opportunities for fast tracking plans and permits.
3. Action: Maintain a competitive development fee structure.

4. Action: Maintain an up-to-date portfolio of business incentives and policies and provide clear guidelines for their use.
5. Action: Maintain a package of available tools and research best practices to identify new business assistance options.
6. Action: Create and maintain a database of state and federal funding sources and programs that assist in meeting business needs, including financing, training and services.
7. Action: Use all legislative resources available and collaborate with other entities to lobby for the preservation of existing business attraction incentive programs and the development of new ones.
8. Action: Develop a policy and funding source to assist with employee relocation expenses for companies that bring high-wage jobs to Marana.

Goal 3: Focus Area Workforce Development: Maintain local and regional partners to work with a highly qualified and diversified workforce tailored to target industries and local business activities.

a. Policy: A Support local education service providers to expand the capabilities of the workforce.

1. Action: Hold periodic meetings with local and regional educational institutions to discuss issues and opportunities for Marana to achieve economic development goals.
2. Action: Explore opportunities with Pima Community College, The University of Arizona, and Marana Unified School District to offer classes and training programs at Town of Marana municipal facilities or local businesses.
3. Action: Work closely with Pima Community College, The University of Arizona and Marana Unified School District to develop curriculum and training programs tailored to local employees.

b. Policy: Increase focus and investment in workforce development.

1. Action: Maintain a Workforce Development and Job Training Council (identified as Science and Technology Council in the Strategic Plan) that will hold regular meetings with the intent to match major employers with education partners to create workforce solutions.
2. Action: Develop a Town of Marana dedicated funding source for job training.

c. Policy: Attract additional educational and training institutions to Marana.

1. Action: Develop a marketing strategy for attracting education and training institutions.
2. Action: Working with area businesses, develop and maintain a current education and training needs assessment and include in the marketing strategy.
3. Action: Identify potential locations for campuses and training centers and work with private and public sector entities to provide appropriate infrastructure.

Goal 4: Focus Area Tourism and Visitor Experience - Become the region's premier leisure, recreation and group meeting destination.

a. Policy: Develop Marana's tourism and visitor experience "product."

1. Action: Establish a "Tourism Team" to represent Marana in coordinating with regional and state tourism promotion entities.
2. Action: Work with and support groups and organizations (including non-profits and historical society) to expand heritage tourism.
3. Action: Work with the Chamber of Commerce and the hospitality industry to develop a tourism and visitor experience marketing strategy.
4. Action: Integrate heritage-related information, activities and events throughout the community.

b. Policy: Develop community amenities and facilities to make Marana attractive to visitors and enhance the resident experience.

1. Action: Capitalize on opportunities to jointly develop recreation facilities with private sector partners and other agencies.
2. Action: Improve bicycle and pedestrian facilities and amenities.
3. Action: Upgrade the community's parks and recreation facilities.
4. Action: Create a unique Downtown as an amenity for residents and a destination for visitors to shop and attend entertainment venues that generate revenues for the Town.
5. Action: Become a destination for trade shows, conferences and other similar major events that will bring visitors to Marana.
6. Action: Complete the Heritage Tourism Park and associated Santa Cruz River shared use path for use by residents and visitors.
7. Action: Complete the Tortolita Mountain/northeast Marana trail system (extending through both Pima and Pinal counties) to be used as a major tourism and recreation attraction.

Goal 5: Focus Area - Community and Infrastructure Development - Within the purview of municipal government, provide quality services to support economic development efforts.

a. Policy: Systematically identify, prioritize, and implement infrastructure projects that support economic development goals, building public-private partnerships and creative financing arrangements where possible.

   1. Action: Maintain planning policies to ensure utility availability to serve future development.
   2. Action: Create and maintain a capital improvements plan for each of the nine identified Activity Centers.
   3. Action: Maximize state and federal funding and loan programs for infrastructure development.

b. Policy: Build partnerships with regional and state infrastructure entities.

   1. Action: Participate in efforts to enhance the regional transportation system.
   2. Action: Collaborate and strengthen partnerships with private utility providers to meet Marana's economic development goals.
   3. Action: Improve relationships with other governmental entities to facilitate joint infrastructure development projects.

c. Policy: Maintain local control of public utility resources where possible and logical to ensure an efficient development process and support community goals.

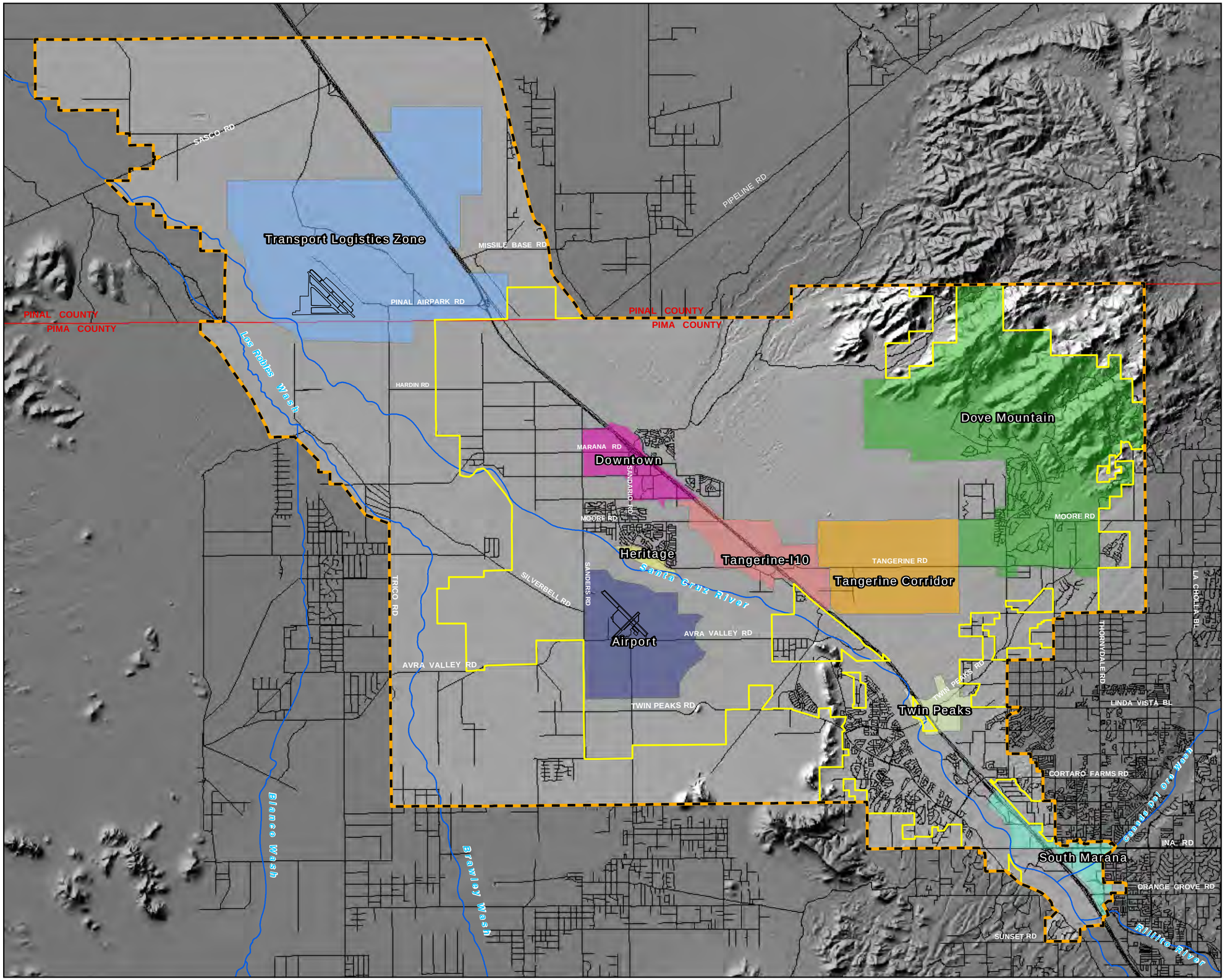
   1. Action: Secure an adequate water supply and improve the Marana water distribution system.
   2. Action: Perform a comprehensive analysis of all utility services provided to determine ways to increase efficiency and gain more local control and influence.

d. Policy: Develop a strong community foundation that will result in a quality business climate.

   1. Action: Maintain high-quality public safety services.
   2. Action: Collaborate with regional partners to maintain air and water quality.
   3. Action: Implement a community beautification program.

Further Reading

Transportation, Distribution & Logistics – Industry Cluster Summary by the Center for Workforce Development on November 30, 2010 from http://www.maricopa.edu/work/pdfs/SummaryTransportation.pdf



MARANA

2010 General Plan

7.3.A

Economic Activity Centers

- Heritage
- Dove Mountain
- Tangerine-I-10
- Tangerine Corridor
- Airport
- Downtown
- South Marana
- Twin Peaks
- Transport Logistics Zone
- Planning Area
- Marana Town Limits
- Pima/Pinal County Boundary

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Data Disclaimer: The Town of Marana provides this map information "As Is" at the request of the user with the understanding that it is not guaranteed to be accurate, correct or complete and conclusions drawn from such information are the responsibility of the user. In no event shall The Town of Marana become liable to users of these data, or any other party, for any loss or direct, indirect, special, incidental, or consequential damages, including but not limited to time, money, or goodwill, arising from the use or modification of the data.

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7.4.1. Introduction

The Town of Marana is defined by more than its geographical boundaries, landmarks, and public infrastructure. It is the interaction of people, services, and commerce that are at the core of the Marana Community. For this reason, it is critical that the community is enabled and empowered to take an active part in establishing our vision.

Building a vibrant sustainable community requires the participation of individuals, neighborhoods, community and faith-based organizations, and businesses providing ideas, volunteer service, and leadership. As ideas become plans and plans become action, a community takes shape. It is critical that all Marana residents and stakeholders have the opportunity to be involved in creating the vision that will move Marana into the future.

7.4.2. Background

Early in the Town's history its founders built a culture of community involvement hosting special events and public works projects that solicited broad-based participation by residents. The Town keeps these traditions alive through encouraging civic involvement, building strong partnerships with residents and organizations, and by sponsoring community celebrations that highlight the history and unique culture that has developed in the Marana area over the centuries.

Marana residents are actively involved in the governance of the Town by serving as members of the elected body, volunteering on boards and commissions, offering opinions and presenting ideas during Council meetings, participating in community open houses and public hearings, and voting in elections. Access to public records and public meetings ensure accessibility to the public process where important decisions are made.

Many members of the public are involved in the planning process when applications for projects that affect them, their business, and/or their neighborhood are made. Public noticing and public participation is required and conducted for all rezonings, specific plans, variances and significant land use changes.

Public participation is encouraged. The Town strives for full transparency in government and has put a variety of systems in place to ensure that the public has access to governing documents, the information to make informed decisions, and avenues of input to decision making. The rights of citizens to examine public records is guaranteed by the Freedom of Information Act (FOIA) which was created to give Americans increased access to federal government documents and records. Access to

state, county and municipal government records are assured by Arizona Public Records Law.

7.4.3. Desired Outcome

Work together as a community to achieve the "Marana Vision" through civic engagement, strategic partnerships, broad-based participation, and volunteer service, and involve residents, businesses and stakeholders in planning and decision making to ensure that the values of community are reflected in the natural and built environments, activities, commerce, and governance of the Town.

The Town recognizes that community involvement in planning should enable the local community to say in what sort of place they want to live early enough in the planning process that can make a difference. The Town desires to work together as a community to achieve the "Marana Vision" through civic engagement, partnerships, and volunteer service.

7.4.4. Existing Conditions

The Town is innovative in reaching out to the community and engages its citizens. Proactive efforts to establish communication with the public involve the production of both staff and community newsletters, utilizing traditional and social media to provide information about events and opportunities for participation and engagement. Relationships with area organizations and homeowners associations allow the Town to capitalize on community-based distribution networks to disseminate information.

The Planning Commission and the Board of Adjustments are required citizen appointed bodies required by state statues. Marana offers opportunities for community involvement beyond the statutory requirements. These ongoing efforts to involve the community in every aspect of governance and planning include six active ongoing Citizen Advisory Commissions (CAC). Commissions work directly with the public to ensure that public issues and concerns are consistently identified, understood and considered. Active Citizen Advisory Commissions include:

1. Affordable Housing
2. Business and Economic Development
3. Parks and Recreation
4. Police
5. Utilities

The Citizen Resource and Education Workshops (CREW) serve as a communication tool to provide information and participation between the Town staff, citizens and businesses within Marana. CREW workshops are periodically offered to citizens interested in finding out more about the town. This eight week workshop provides an

overview of various departments within the Town structure. Surveys are another tool the Town uses that moves participation beyond key stakeholder involvement.

Although the Town is always striving to improve communication with its residents and stakeholders, community involvement takes a variety of forms. Community partnerships with the Marana Health Center, the Marana Unified School District, Marana schools, Northwest Rural Metro and Avra Valley Fire Departments, Pima County Libraries, business advocacy, and numerous nonprofit service organizations provide a forum for open dialogue with the community.

Participation by residents, businesses, and other community stakeholders in every level of planning and decision making has helped shape Marana's actions and long-term vision as adopted by the Mayor and Council. The Town's seven commissions offer an opportunity for citizen input. These commissions are comprised of volunteers who apply for and been appointed to serve as public representatives both voicing opinions on project planning and policy matters and providing local area expertise in an advisory capacity.

Although each Town committee and commission has specific duties and areas of responsibility, all operate under principles of standardized governance. The Town has established this formal mechanism as a conduit to the community. The committees and commissions include: the Planning Commission, the Board of Adjustment, the Municipal Property Corporation, the Affordable Housing Citizen Advisory Commission, the Parks and Recreation Citizen Advisory Commission, the Utilities Citizen Advisory Commission, the Business and Economic Development Citizen Advisory Commission, and the Policy Citizen Advisory Commission. Discussed below are the later five Commissions.

Affordable Housing Citizen Advisory Commission:
The Affordable Housing Citizen Advisory Commission considers and makes recommendations to the Mayor and Town Council on matters relating to the Town's Affordable Housing Program and Community Development Block Grant (CDBG) Program, including the sale, lease, rental, operation, improvement, development and beautification of any and all affordable housing projects of the Town. The Commission advises the Town Council on the planning of affordable housing projects and the development of a comprehensive and adequate Affordable Housing Plan for the Town.

Business and Economic Development Commission:
The Business and Economic Development Commission studies and makes recommendations to the Mayor and Town Council on matters relating to the direction of the Town's economic development efforts as well as on matters of public policy affecting the Town's business community. The Commission advises the Town Council on the planning of economic development efforts, business assistance programs

provided to help businesses affected by public improvement projects, and on legislation proposed at the local, state and national levels. Business and Economic Development Commission meetings are a public forum for citizens and business owners to voice their opinions regarding economic development issues and legislation affecting businesses.

Parks and Recreation Citizen Advisory Commission:
The Parks and Recreation Citizen Advisory Commission assists staff with studies and makes recommendations to the Mayor and Town Council on matters relating to the planning, improvement, development, enterprise management, and beautification of parks, park buildings, and other facilities owned or controlled by the Town. The Commission advises the Town Council on the promotion and planning of a comprehensive and adequate recreation park program for the Town.

Police Citizen Advisory Commission:
The Police Citizen Advisory Commission promotes cooperation between the police department and the community. The Commission, in its diversity of composition and its functioning, is intended to represent the external point of view of the citizens of Marana.

It is the policy of the Town of Marana to foster and encourage a citizen/police partnership in the prevention of crime and to develop and maintain positive communications and mutual understanding and trust between the police and the community.

Utilities Citizen Advisory Commission:
The Utilities Citizen Advisory Commission considers and makes recommendations to the Mayor and Town Council on matters relating to the Management and operations of the Town's Utilities Enterprise fund, electrical, water, wastewater, street lighting, and franchises for natural gas, cable and other authorized utility functions. The Commission advises the Town Council on the planning, development, construction of a Master Plan for the Town's utilities system.

Public Meetings

Two other devices used to disseminate information and solicit public comment on key policy issues and strategic directions are "Open House" and "Town Hall" style public meetings.

The intent of the open house format allows the public to view project specific displays and talk with staff, commissioners, and/or elected officials. Meetings are advertised in blocks of time rather than on starting time and are scheduled in evenings and on weekends to provide flexibility and encourage attendance. The informal setting offers the public the opportunity to gather information and provide

comments without a formal presentation. This process is in use for development of the General Plan and has been used extensively for strategic, neighborhood, and community planning.

Town Hall meetings follow a formal format with presentations from staff and/or elected officials followed by public comment. These meetings offer residents a forum to discuss a specific topic or comment on planning and policy during the formation of ideas.

Marana Vision Statement

The vision statement: "Committed to Our Future, Inspired by Our Past" was developed through citizen participation in the 1997 Marana General Plan. That vision statement has evolved into a more definitive direction statement: "Marana is the centerpiece of the Sonoran Desert experience, where fun and progress meet". Recognition of community character, orderly development and sustainability factors characterize the Marana vision, then and now.

Community Events

Marana hosts a number of high profile public and for profit events that benefit local and regional organizations. Events include:

1. The PGA Tour's World Golf Championship - Accenture Match Play Championship is held at the Ritz Carlton Resort in Dove Mountain. The championship brings charity dollars to southern Arizona through the Tucson Conquistadores.
2. The Marana Regional Airport holds a number of airport related events and air shows throughout the year including the "Wings of Freedom Tour" which benefits the Collings Foundation.
3. The Western Heritage Arena hosts roping and barrel racing competitions, including the Charity Team Roping and Barrel Race, sponsored by the Town's Police department to raise money for Special Olympics programs in Arizona.

Outreach to the region is ongoing. Town officials and staff regularly attend committees and working groups to address regional issues and share information. Marana is an active participant in the Pima Association of Governments, the Metropolitan Pima Alliance, and the Central Arizona Association of Governments in Pinal County.

7.4.5. Current, Proposed or On-Going Projects

The Town of Marana's Strategic Plan provides a vision and direction for community building. The directive to "Create a safe community with a strong sense of place,

where diverse people are motivated to be involved and feel connected, needed and appreciated" has led to more extensive neighborhood outreach.

Initiatives within the Community Building strategic focus area fall under the responsibilities of various Town departments. In November 2009, the Town Council recommended the consolidation of activities that provide outreach to neighborhoods under a Community Development and Neighborhood Services Department to help facilitate communication and coordination with residents. The department was also tasked with building partnerships between the community and other Town departments. This initiative was designed around the concept that a department with neighborhood outreach and education as one of its functions could also serve as facilitator to deal with ongoing relationships and both short- and long-term neighborhood concerns. Embracing this focus provided the Town with an opportunity to identify programs and initiatives that would encourage citizen and neighborhood empowerment.

Town Special Events and Celebrations

The Town plays a large role in organizing and funding community events and celebrations. The Town sponsors signature civic events and hosts a number of high profile events. Annual Town events include the Fourth of July celebration, Founder's Day and the Marana Fall Heritage Festival. These events work to support local and community partners including, the Marana Food Bank, the Marana Arts Council and the Marana Chamber of Commerce.

The Marana Heritage River Park is a new venue for community events, providing a home for a farmers market, recreation, arts and other community events. The River Park has a working farm that benefits the Marana Community Food Bank. The park serves as home to the Marana Arts Council, the office site of the Gladden Farms Homeowners' Association and the Marana Police Department's equestrian unit.

Marana is engaging community organizations to plan for the social infrastructure and service needs of the Town. An example of this commitment is Marana's support of the planning, design, construction and funding of the Marana Regional Community Center. The proposed community center in north Marana will be jointly and cooperatively operated by and among the Town of Marana, the Marana Unified School District, Pima Community College, Pima County, the Pima County Library District, the University of Arizona, the YMCA of Tucson, and other community partners. Community services the center will provide include regional public education, recreation, library, child care, wellness and a community meeting facility.

7.4.6. Opportunities and Challenges

The Town desires to promote a positive view of planning as a strategic, proactive force for sustainable development. Changing the way people think and feel about the planning system and local government are a vital part of the planning reform agenda.

Challenges

Challenges and barriers to shifting citizen attitudes towards the planning system and local government include:

1. The costs of participation for Marana to run community involvement exercises
2. The complexity of many of the issues.
3. Planning can seem a remote, bureaucratic process which does not encourage involvement.
4. The difficulties of identifying and reaching different groups within a community.
5. The language of planning, with its reliance on technical expressions and jargon, can be off-putting. Sometimes planners can inadvertently reinforce the barrier through the way they communicate.
6. The perception that community involvement exercises will be captured by individuals or articulate groups who dominate proceedings. Community involvement is not about giving a free hand to unrepresentative vocal groups to block development irrespective of the case for it. Nor is it about talking to a few, favored organizations.

Benefits of Community Involvement:

- Public involvement leads to outcomes that better reflect the views and aspirations and meet the needs of the wider community in all its diversity.
- Public involvement is valuable as a key element of a vibrant, open and participatory democracy.
- Involvement improves the quality and efficiency of decisions by drawing on local knowledge and minimizing unnecessary and costly conflict.
- Involvement educates all participants about the needs of communities, the business sector and how local government works.
- Involvement helps promote social cohesion by making real connections with communities and offering them a tangible stake in decision making.

Opportunities

Marana has a number of design mechanisms that work to promote place and character for new development within the Town including: design standards for residential and commercial development, specific plans, and an overlay district. The residential design standards are intended to foster the establishment of neighborhoods that avoid the appearance of "production" housing, and lead to greater design diversity. The commercial design standards are organized around building design and site planning. Commercial site standards are intended to ensure a more compact, pedestrian friendly pattern of development and

encourage the incorporation of design features into commercial projects. Both standards are reviewed by the Town planners for design compliance.

7.4.7. Issue Identification and Trends

Effective community involvement is a challenge to all parties. Planning is often seen as conflict laden, but with creativity and good will, solutions can be found and consensus reached. Even so, hard choices have to be made and it is the role of the Town Council as decision makers to do just that. It would be unrealistic to think that all sections of the community will be completely satisfied by all plans and planning decisions all of the time.

7.4.8. Strategic Direction

The Town will build on community assets and strengthen existing linkages and interconnections among people and organizations to achieve shared community goals. Marana is working to build consensus on future growth by engaging the community in transparent processes that provide a voice for residents, neighborhoods, developers, and the business community.

7.4.9. Goals, Policies and Action Items

Goal 1: Create a safe community with a strong sense of place where diverse people are motivated to be involved and feel connected, needed and appreciated.

a. Policy: Create a sense of community identity and "community place".

1. Action: Continue to support the development of Marana's main street/downtown development.
2. Action: Continue to investigate the development of a Marana Main Street/Downtown improvement district to encourage infrastructure development.
3. Action: Provide redevelopment opportunities to create façade and landscaping improvement programs for existing businesses on Sandario Road so that they will fit in with the downtown vision and appearance.
4. Action: Identify an outreach and education Public Involvement Plan.

b. Policy: Expand Town volunteer program.

1. Action: Establish a volunteer program where employees can use hours to volunteer within the Community.

Goal 2: Increase resident's participation in civic activities.

a. Policy: Increase voter registration and turnout.

   1. Action: Create a program so that there are a variety of locations to register to vote. Example: voter registration in High School, Chamber of Commerce events, post office, Town events, Marana Health Center, etc.

b. Policy: Provide local leadership training to nurture future leaders; develop viable candidates for elective and appointed officers.

   1. Action: Establish leadership seminars to train future community leaders.
   2. Action: Widely advertise vacant elected and appointed positions.

c. Policy: Provide opportunities for participation in community service projects at all age levels – teens, young parents, empty-nesters and seniors.

   1. Action: Use the newspaper to communicate and recruit volunteers for community projects/programs.
   2. Action: Develop educational programs to instruct residents of the community on how decision making works and how they can participate.
   3. Action: Honor those who give and participate.
   4. Action: Establish a community foundation for volunteerism and philanthropy.

d. Policy: Engage citizens (especially new residents) in active participation in local governance and decision-making regarding decisions about the built and natural environment, so they are actively involved in the creation and management of civic community.

   1. Action: Promote the importance of civic participation and the engagement of residents in local decision-making. Provide residents information about opportunities to serve on locally appointed boards and commissions. Instill healthy, well-rounded community-wide citizen participation in local governance.
   2. Action: Promote the use of public services and facilities that will engage and foster links, relationships, and associations among the community at-large. Provide residents information about recreational facilities, activities and annual events, which serve as community gatherings.

e. Policy: Work collaboratively to increase citizen participation in public affairs.

1. Action: Conduct focused outreach efforts to encourage all members of the community – including youth, seniors, special needs groups, and non-English speakers – to participate in Town activities.
2. Action: Promote public participation by contacting citizens in their neighborhoods and gathering places such as schools, houses of worship and public spaces.
3. Action: Invite civic, neighborhood, and non-profit groups to assist with Town project and program planning and implementation.
4. Action: Provide incentives for Town staff to participate in community and volunteer activities.
5. Action: Invite and train seniors to mentor youth and serve as guides/docents at cultural/historical sites.
6. Action: Offer internships in Town governance, and include youth representatives on public bodies.
7. Action: Hold regular meetings with the Marana Unified School District superintendent.

f. Policy: Raise awareness of Town operations and promote civic engagement.

1. Action: Use the Town website as a key source of information and as a tool for civic engagement.
2. Action: Publish an annual report that evaluates Town performance in such areas as conservation, housing, and economic development.
3. Action: Create an electronic directory of town services.

Goal 3: Foster an open atmosphere that embraces change, creativity, innovation and calculated risk.

a. Policy: Develop partnerships, policies and programs that foster innovation and effective use of taxpayer resources.

1. Action: Retool Marana 101 (see glossary for program description).
2. Action: Reconvene the Marana 101 Committee to discuss new ideas.
3. Action: Set up a regular meeting schedule for the Committee to evaluate the program's progress.
4. Action: Use survey data from the Marana 101 program participants to continually evaluate how to improve.
5. Action: Increase communication with and between employees throughout all levels of the town organization.

6. Action: Partner with other entities, schools and organizations to foster creativity and innovation.
7. Action: Explore the possibility of a 4-year university extension.

Goal 4: Maintain a sense of community character by linking the past, present and future.

a. Policy: Develop policies that link Marana's heritage to projects and programs.

1. Create a program to give historically significant names to parks and public facilities.
2. Revise public naming guidelines.
3. Create a "Marana Hall of Fame" recognition program for significant community achievements.
4. Engage long time community members to be involved with Commissions and Boards.
5. Amend Board and Commission policies to allow for ongoing founder's participation.

Goal 5: Maintain neighborhood and business profiles.

a. Policy: Keep up to date contact information on file for communication of opportunities (volunteer, civic engagements, decision making).

1. Action: On-line database for voluntary registration.
2. Action: Update annually.
3. Distribute to police and other emergency responders for use in emergency situations.

Goal 6: To secure business safety and security.

a. Policy: Reduce crime and criminal behavior by encouraging businesses to participate in building relationships.

1. Action: By partnering with local law enforcement, gain skills in detecting criminal behavior and the best methods for prevention and prosecution.
2. Action: Sharing resources and communicating on consistent basis, the business has the opportunity to prevent reoccurring criminal activity and protect employees from workplace violence.
3. Action: Groups of similar businesses may organize themselves to accommodate the needs of the area or the industry they support.

Goal 7: Encourage residents/businesses to participate in neighborhood a watch program.

a. Policy: Reduce crime and criminal behavior by encouraging citizens to actively participate in building neighborhood relationships. Through these unions, they are looking out for one another, working on preserving or improving neighborhood safety and preparing themselves for emergency situations.

1. Action: By partnering with local law enforcement, they can gain confidence to make reports of suspicious activity, the importance of marking valuable property and making efforts to secure their homes, leaving little opportunity for crime to occur.
2. Action: Groups organize themselves to accommodate the needs of the community. They develop effective communication methods and ongoing opportunities to keep members involved in their neighborhood.

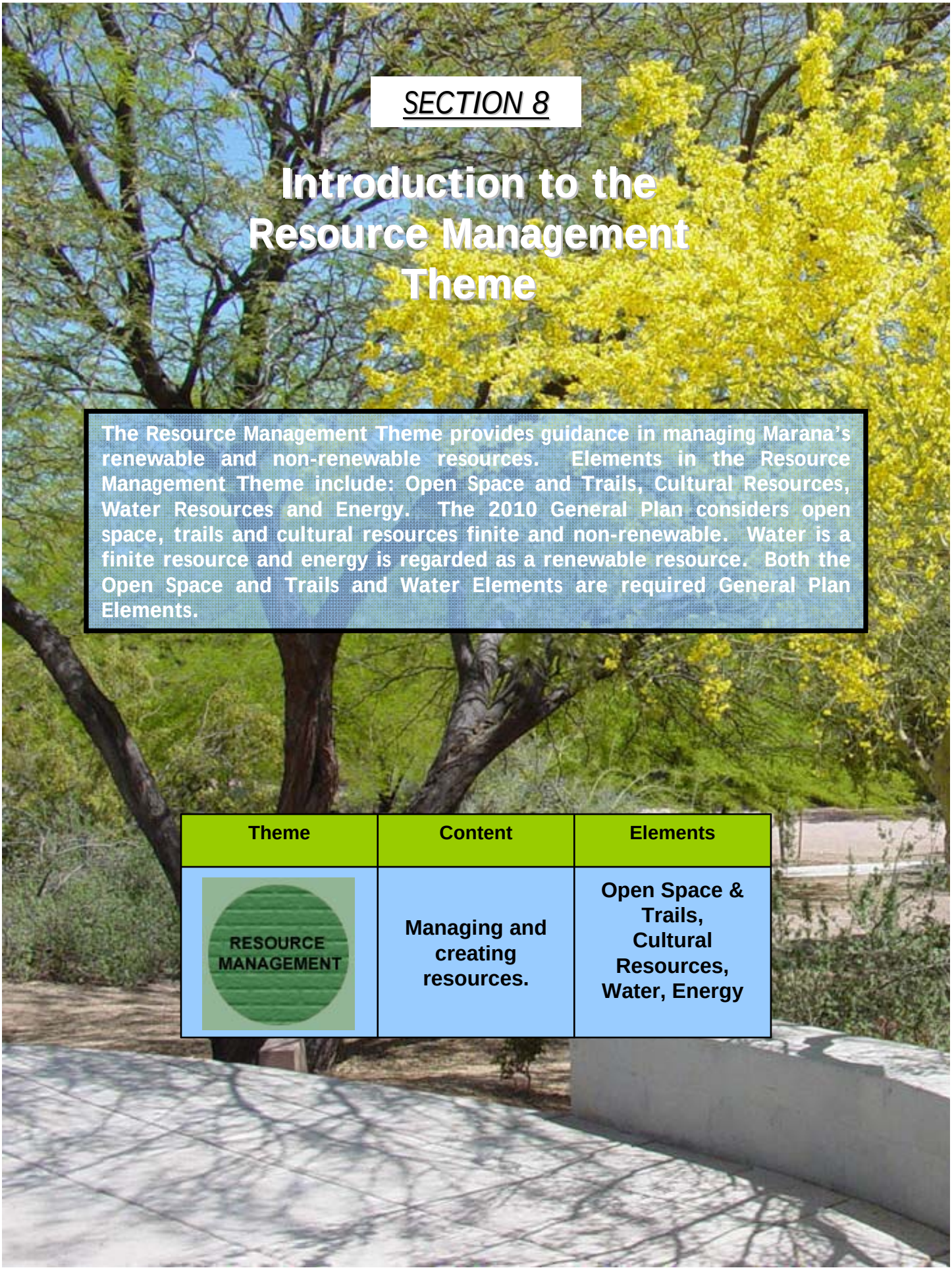
Further Reading

"FOIA Facts | Goldwater Institute." *In Defense of Liberty | Goldwater Institute*. Web. 19 July 2010. <http://www.goldwaterinstitute.org/foiafacts>.

United Kingdom. Department of Communities and Local Government. Office of the Deputy Prime Minister. Community Involvement in Planning: the Government's Objectives. Wetherby: Office of the Deputy Prime Minister, 2004. Web. 19 July 2010. <www.communities.gov.uk/documents/planningandbuilding/pdf/ 147588.pdf>.

United Kingdom. Department of Communities and Local Government. Office of the Deputy Prime Minister. *Consultation Paper on a New Planning Policy Statement 4: Planning for Sustainable Economic Development.* London: Department for Communities and Local Government, 2007. Web. 19 July 2010. <www.communities.gov.uk>.

United Kingdom. Department of Communities and Local Government. Office of the DeputyPrime Minister. *Planning Policy Statement 1: Delivering Sustainable Development,* 2005. Web. 19 July 2010. <www.communities.gov.uk/publications/planningandbuilding/planningpolicystatement1>.



SECTION 8

Introduction to the Resource Management Theme

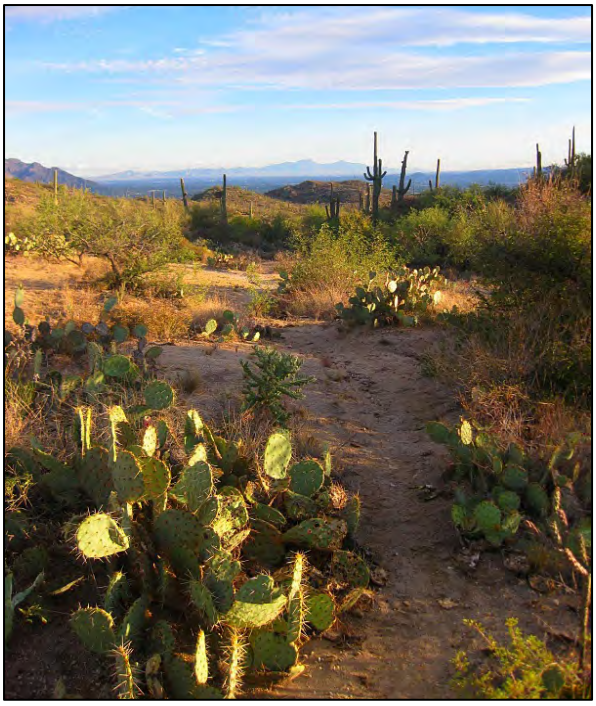
The Resource Management Theme provides guidance in managing Marana's renewable and non-renewable resources. Elements in the Resource Management Theme include: Open Space and Trails, Cultural Resources, Water Resources and Energy. The 2010 General Plan considers open space, trails and cultural resources finite and non-renewable. Water is a finite resource and energy is regarded as a renewable resource. Both the Open Space and Trails and Water Elements are required General Plan Elements.

Theme	Content	Elements
RESOURCE MANAGEMENT	Managing and creating resources.	Open Space & Trails, Cultural Resources, Water, Energy

8.1.1 Introduction

Arizona's Growing Smarter legislation requires a planning element showing a comprehensive system of areas and public sites for recreation including natural reservations, parks, playgrounds, playfields, open space, and bicycle routes. This requirement was met in previous Marana general plans in the Recreation and Open Space element. The Marana 2010 General Plan divides these areas into two elements: Parks and Recreation, and Open Space and Trails. Separating these areas according to how the land is managed, and the primary purpose for the way it is managed ensures the complexities that make for a good Quality of Life are not lost. Recreation and Open space is managed for the benefit of people and community. Open Space and Trail lands have broader goals and are managed as a resource to be preserved indefinitely for existing and future generations. Wise management of these lands secures the natural processes that occur on the land.

8.1.2. Background



Three documents drive the 2010 Marana General Plan. The Town of Marana's Parks, Recreation, Trails, and Open Space Master Plan (2010), Draft Habitat Conservation Plan (HCP: 2009 rev.) and the Marana Strategic Plan. All three promote a high Quality of Life for citizens by providing areas of passive and active recreational opportunities while conserving natural scenic beauty, floodplains major drainageways, wildlife habitat and linkages, agricultural resources, and cultural heritage for the benefit of present and future generations. These plans provide an opportunity for open space and Green Infrastructure to create a community with a sense of place in the unique Sonoran Desert.

The Draft Marana Habitat Conservation Plan

The Draft Marana Habitat Conservation Plan (HCP: 2009 rev.) identifies open space that is significant for wildlife use by sensitive species and provides guidelines to set aside and manage conservation easements, riparian areas, and open space.

The Draft Marana HCP provides measures to minimize and mitigate the effects of the proposed incidental take of federally listed species to the maximum extent practicable. This HCP will help provide for long-term regional planning and will help protect wildlife and habitat while improving the Quality of Life for Marana residents.

Marana Parks, Recreation, Trails and Open Space Master Plan

The Town of Marana initiated the Parks, Recreation, Trails and Open Space Master Plan in the Fall of 2008. An updated Master Plan is currently being completed (2010). The plan will result in recommendations for future recreation programs, parks, park facilities, open space and trails. These facilities will help Marana maintain its current high level of parks and recreation services as the Town's population increases. The Plan will include maps that show the locations of existing and planned parks, trails and facilities (such as community centers). It will include recommendations for future recreation programs, operations and management and identify opportunities for funding future recreation programs, for acquiring land for parks and trails and for construction of new park and recreation facilities.

Marana Strategic Plan

The Town of Marana's Strategic Plan identifies the importance of open space and the protection of the Sonoran Desert as part of its goals and action strategies.

8.1.3. Desired Outcomes

The Town desires to create land-use plans that control growth and development while directing development to locations where sewer, water, roads, and other public infrastructure are available. This will reduce urban sprawl and exurban development, which is expensive, wasteful of energy, and likely to fragment open space.

The Open Space and Trails element provides a "green-print" for the Town of Marana. A designed community with green infrastructure incorporated into development plans will provide pedestrian-friendly interconnected paths, parks, and trails for recreational use and will also set aside sensitive wildlife habitat areas, culturally sensitive areas, washes, and buffers. This element, as well as the Parks and Recreation and Cultural Resources Elements will provide opportunities for people to recreate and will contribute to a higher Quality of Life for Marana residents.

Some open space areas will be (1) focused on recreational trails, bike paths, and parks, while (2) some areas will be compatible low-impact recreational activities and provide wildlife habitat, and (3) other areas will need to be set aside as wildlife habitat for sensitive species and to protect cultural resources.

8.1.4. Existing Conditions

Marana's open spaces include natural undisturbed areas including the Tortolita Mountain Preserve, Santa Cruz River, Los Robles, Brawley and Cañada Del Oro Washes. (See Natural Resources Map on page 9.1.A). Important wildlife habitat areas are conserved through a variety of plans and programs such as the Marana Draft Habitat Conservation Plan, Marana 2007 General Plan, Pima County Multi Species Habitat Conservation Plan (2009), and the Pima County Comprehensive Plan (2001).

Current open space areas

The Tortolita Mountain Preserve

The 2,400 acre Tortolita Mountain Preserve is owned by the State Land Department. It is conserved through a 99-year lease held by the Town since 1999. The Town has used bond funds and volunteer efforts to construct a network of trails throughout the Preserve.

Tortolita Fan

The Tortolita Fan is a large alluvial fan that extends from the preserve to the west and southwest. Its border is the Central Arizona Project Canal to the west and the Tortolita Mountains to the east. The fan is characterized by abundant native vegetation, areas of sheet flooding, and a number of natural washes. The Town has proactively moved to direct new growth and development away from the fan to other areas, to help protect habitat for wildlife species that are threatened, endangered, or of concern, such as the lesser long-nosed bat, cactus ferruginous pygmy-owl, Sonoran desert tortoise, and others on the fan.

The Town of Marana has open space goals for the Tortolita fan. This is due to the variety of plant and animal species, the floodplains, wash systems and archaeology. The Town is looking at options for open space on the fan where it makes the most sense.

Santa Cruz River

The Santa Cruz River, which runs through Marana from the southeast to the northwest, is largely channelized on its east side through the developed portions of the Town. The river is unchannelized north of Sanders Road. Its' significant, 20 plus mile reach provides open space and recreation opportunities. The river's 100-year floodplain intersects with that of Los Robles Wash, and creates an almost one square mile wide floodplain. This is a significant open space resource bounded by the Wash, the River, Pinal Air Park Road and approximately East Missile Base Road (extended) to the north.

The Santa Cruz River acts as a riparian corridor and provides water and vegetative cover for wildlife. Protection of this corridor is of critical concern for overall species mobility. There is habitat for several threatened and endangered species within the river's riparian area. Riparian areas also indicate the greatest concentrations of cultural resources.

Brawley/Los Robles Wash

The Brawley/Los Robles Wash is a largely unchannelized wash that lies between the Santa Cruz River and the Ironwood Forest National Monument. Because most development within the Town is located east of the Santa Cruz, this wash retains its natural character.

Cañada del Oro Wash

The Cañada del Oro Wash is located at the southeastern edge of the Town, east of the I-10. This wash has been impacted by development and is a regional trail connection.

Central Arizona Project Canal

The Bureau of Reclamation's Central Arizona Project Canal is another man-made open space feature. The elevated canal has a substantial right-of-way that is the location of a planned regional trail.

Open Space adjacent to Marana

There are three (3) important large natural open space areas that are adjacent to the Town of Marana. These are Saguaro National Park, Tortolita Mountain Park, and Ironwood Forest National Monument.

Saguaro National Park is an important visual and biological resource area. It attracts tourists to the community, provides recreational opportunities for Marana citizens and serves as a visual amenity for the Town. An on-going partnership between the Town and the National Park will be utilized to protect this natural open space area and is located along the southern edge of the General Plan Planning Area (See Planning Area Map on page 5.1.B). The Park attracts several hundred thousand visitors each year. The land within the park serves as a visual resource for the Town of Marana. Visitor expenditures serve to strengthen the Town economy to enhance the benefits that can accrue to the Town from having a National Park as a neighbor. An on-going partnership between the Town and the park should be developed.

Tortolita Mountain Park was established when the Pima County Board of Supervisors approved the expenditure of 1986 bond funds to acquire 3,055.75 acres of private property in the rugged backcountry of the Tortolita Mountains for park purposes. The first 2,426.75 acres was purchased in 1986, and another 629 acres were added in 1988. Several recent acquisitions have brought Pima County's current holdings in the Tortolitas to 3,445.75 acres. The park will eventually serve as the principal natural open space park for the rapidly growing northwest region of the Tucson Basin, including Marana, the City of Tucson, the Towns of Oro Valley, Casas Adobes, Tortolita, and the Village of Catalina. The Tortolita Mountain Park is located northeast of the Dove Mountain community.

The Ironwood Forest National Monument was created in 2000 and is managed by the Bureau of Land Management. It is named for the Ironwood tree, one of the longest-living trees in the Sonoran Desert. It is located west of the town limits and encompasses 129,000 acres of open space.

Agriculture

Farmland provides open space values, such as scenic views and raptor habitat. It provides a stable economic benefit to the community without the need for extensive infrastructure. Farmland can serve as a safety valve for flooding, especially in Marana's floodplain areas and can also serve as habitat for sensitive species such as the burrowing owl and the ground snake.

Dedicated Open Space

The Town of Marana's dedicated open space consists of the Tortolita Preserve and the Heritage Park and Community Garden, which are currently being leased from the Arizona State Land Department, and three (3) Town-owned parcels that are being used as a disc golf course and serve as wildlife connectivity habitat between the Tucson Mountains and the Santa Cruz River.

8.1.5. Current, Proposed and Completed Projects

Draft Marana Habitat Conservation Plan

The Town's Draft Habitat Conservation Plan is designed to protect key species and their habitat. The overall objectives of the Draft Habitat Conservation Plan include:

- Facilitating compliance with the Endangered Species Act for planned urban development and capital improvement projects;
- Promoting achievement of regional economic objectives including the orderly and efficient development of certain lands, while recognizing property rights and legal and physical land use constrains; and

- Complementing other regional conservation planning efforts such as Pima County's Sonoran Desert Conservation Plan and the City of Tucson's Habitat Conservation Plan.

The Draft Habitat Conservation Plan provides an excellent starting point for identification of key open space areas that can be integrated into the Town's Green Infrastructure, including some areas that can support passive trail-based non-motorized recreation activities within Marana.

A regional effort is underway to create an effective wildlife linkage from the Tortolita Mountains to the Santa Cruz River and the Tucson Mountains (as described in the Marana Draft HCP). An application to the Regional Transportation Authority for funding a wildlife crossing study to evaluate crossing structures and placement at the junction of Avra Valley Road and Interstate 10 is currently being developed by a group that includes environmental organizations, Arizona Department of Transportation, and the Town of Marana.

The Parks and Recreation Department has mapped existing and proposed trails and parks (see Parks and Trails Map on page 7.2.A), providing connections throughout the Town in the in the Marana Parks, Recreation, Trails and Open Space Master Plan (2010). This plan will enhance opportunities for citizens to use alternative transportation modes and to enjoy natural open space. The plan recommends future recreation programs, parks, parks facilities, open space and trails. These facilities will help Marana maintain its current high level of parks and recreation.

8.1.6. Opportunities and Challenges

Opportunities

1. The Town's location within the Sonoran Desert offers unique natural sites and vistas appreciated by residents and visitors alike. Because it is a relatively new community with most of its development still ahead, the Town plans to incorporate recreational amenities and natural, undisturbed open space as it grows.

2. Major natural watercourses that wind through Marana offer prime sites for river parks that will provide equestrian, biking and hiking opportunities. The Central Arizona Project (CAP) canal provides linear pathway through the Town that will provide a connection from the Tortolita Mountains to the Tucson Mountains

3. Creating trails and routes connecting the Tortolita Fan to Marana west of I-10 would increase safe access to a wide range of recreation opportunities. These connections include the Marana Road to Cochie Canyon Trail and the Hardin Road Trail alignment.

4. If this area is conserved or preserved through density transfers, restrictions on development within erosion hazard zones, and encouraging development to include the floodplain and erosion hazard zones as part of required open space set asides, a unique open space will be conserved where the Los Robles Wash and Santa Cruz River floodplains merge, retaining the desert landscape and natural vegetation.

5. The Arizona Preserve Initiative is an opportunity to purchase state land for conservation purposes. Funding options could include levies, bonds or working with land trusts.

6. Opportunities to maintain some areas for livestock and agriculture include set-asides of open space for community gardens, maintaining agricultural areas in floodplains, and encouraging conservation of open space using partnerships with land trusts that accept and manage land donated for tax or other purposes.

7. The Draft Habitat Conservation Plan (2009 rev.) has identified high priority areas to preserve as wildlife habitat and as wildlife corridors through consultations with species experts.

8. The Marana Parks, Recreation, Trails and Open Space Master Plan (2010) and the Draft Habitat Conservation Plan (2009 rev.) include strategies to set aside open space for wildlife habitat and multi-use areas for habitat and recreation. Some strategies include density transfers, cluster development, including erosion hazard and floodplain areas as open space set-asides, and requesting open space set-asides when discretionary land use approvals are requested by developers.

9. The Los Robles Wash provides unique recreational opportunities for bicyclists, hikers, and birdwatchers can be developed, if the natural character of the wash is conserved. Zero density transfers, restrictions on development within erosion hazard zones and encouraging development to include the wash floodplain and erosion hazard zones as part of open space set asides can provide for preserved open space along Los Robles Wash.

Challenges

1. The Los Robles Wash is currently outside the Town's developed area. Privately owned farmland and a large one square mile of undeveloped land are crossed by the Santa Cruz River and Los Robles Wash in the Town's northern Planning Area. As development moves west, across the Santa Cruz River, the natural character of the wash will be compromised.

2. The I-10 and the CAP features are barriers to connecting the Fan with the recreation opportunities it contains to and from east of I-10. Creating additional crossings is unlikely beyond the ones identified in the plan for the I-10 and CAP.

3. The Tortolita Mountain Preserve and Tortolita Fan are resources of statewide and national significance. The town has recently made a financial decision to continue its lease, and not purchase simple title to the land, at this time.

4. Although there currently appears to be a substantial acreage of natural open space, Marana does not currently own or have protection over any of this open space other than the areas described under the Existing Conditions section.

5. Agriculture and local farming have played a significant role in the Town of Marana; however the role of agriculture is diminishing as the Town becomes more urbanized.

8.1.7. Issue Identification and Trends

Habitat Fragmentation

Habitat fragmentation within Town boundaries presents a serious obstacle to threatened and endangered wildlife and a threat to overall biodiversity. To reduce the threat caused by habitat fragmentation, it is desirable to connect large contiguous areas of open space and allow for species mobility through wildlife movement linkages, especially between the Tortolita, Tucson, and Santa Catalina Mountains.

The trend will be continued development of businesses and residences on what is currently de-facto open space, and areas available for open space and trails will be an increasingly valuable asset. Therefore, it is prudent for the Town to plan for open space both for recreational use and for natural, undisturbed open space now while the opportunity remains.

Santa Cruz River – Continuing Urbanization

The town will continue to look for urbanization design that continues with hydrological, ecological, and recreational functions along the riparian corridors. This calls for large thinking: structuring Quality-of-Life enhancements around a river corridor with open space and parks.

Approaches that are being discussed include

reconciliation ecology concepts such as:

1. Maintaining, mixed-use urban river parks
2. Conserving existing open space and utilization of effluent water.
3. Development of long-term concepts for re-shaping urban areas around reconciled natural and cultural resources of the Santa Cruz River corridor.

State Trust Land

State Trust Lands comprise a large area of what is currently undisturbed vacant land in Marana; however, this land can not be considered preserved open space. The Arizona State Land Department has the responsibility on behalf of public education beneficiaries to assure that when land is sold or leased, a fair market value must be obtained. Therefore, development can be expected to occur on State Land unless a preserve initiative is approved by voters or the Town takes some action, such as acquisitions, coordination on master plans, or exploring national monument or park status; such as providing a density bonus where density of a development is increased proportionality with the area set aside as open space, or similar conservation measures.

8.1.8. Strategic Direction

The Strategic Plan (2009) identified a goal to "showcase the unique Sonoran Desert environment by providing diverse recreational opportunities that create economic benefits and accommodate a healthy lifestyle." Completion of the Draft Habitat Conservation Plan and the Marana Parks, Recreation, Trails and Open Space Master Plan are strategies to help ensure that future development, land-use, and projects protect and showcases the Sonoran Desert and all of its inhabitants. The goal of identifying and protecting open space for recreational use and as wildlife habitat supports other goals in the Strategic Plan to recruit new business to the Town, since many businesses evaluate outdoor recreational opportunities as one factor in their decision to locate in an area. Preserving open space also creates a community with a strong sense of place as beautiful Sonoran Desert areas and farmland are protected.

8.1.9. Goals, Policies and Actions

Goal 1: Provide community residents the broadest possible range of opportunities for natural resource-based outdoor recreation, such as hiking, biking, birding etc.

a. Policy: Implement the Town's Green Infrastructure through development of a community open space system consisting of natural resource parks, mountain parks, preserves, agricultural and farm and other areas.

1. Action: Collaborate with the Bureau of Land Management, the State Land Department, Pima County, Pinal County, and the Town

of Oro Valley to protect areas of the Tortolita Mountain and Fan as open space.

2. Action: Collaborate with the Bureau of Land Management related to signs, gateway routes, and the development of an off-site information center for Ironwood Forest National Monument.
3. Action: Collaborate with the National Parks Service (NPS) relating to signs, gateway routes, and the development of an off-site information center for Saguaro National Park.
4. Action: Collaborate with the NPS to create additional recreational opportunities at Ironwood Forest National Monument for Marana residents.
5. Action: Collaborate with the Central Arizona Water Conservation District to develop recreational facilities along the CAP canal and within the "green-up area" east of the canal.
6. Action: Collaborate with the NPS to create additional opportunities for Marana residents to recreate within the Tucson Mountain District of Saguaro National Park.
7. Action: Collaborate with other jurisdictions and agencies to expand the open space system and to construct facilities that will enable the public use and enjoyment of the component parks, preserves, and other open spaces.
8. Action: Initiate discussions with land trusts and farmers to explore opportunities for agricultural conservation.
9. Action: Ensure the conservation of the Avra Valley I-10 connection across the I-10 and the railroad tracks between Tortolita and Tucson Mountains.

Goal 2: Create facilities such as trail systems within natural resource parks that are capable of supporting Town sponsored recreation programs.

a. Policy: Plan and construct appropriate public use facilities within natural resource parks that will support Town sponsored recreation and fitness programs.

1. Action: Evaluate and identify the potential of each component natural resource area to support facilities that can be utilized for recreation and fitness programs.

Goal 3: Protect and preserve natural open space.

a. Policy: Develop a connected system of natural open space preserves that protect wildlife habitat, wildlife linkages, and cultural resources.

1. Action: Preserve, protect, or conserve areas of high-value habitat and wildlife movement linkages as identified in the Marana Draft Habitat Conservation Plan (HCP) and the Marana Parks, Recreation, Trails, and Open Space Master Plan.

2. Action: Preserve Natural Undisturbed Open Space (NUOS) to maintain wildlife access and movement within and through development sites that are subject to discretionary land use actions actions, as described in the Draft HCP.
3. Action: Preserve and protect existing natural drainage systems as identified in the Marana Draft HCP riparian map.
4. Action: Provide and develop passive recreational activities, which are sensitive to the natural environment, for a broad spectrum of the community.
5. Action: Provide educational and interpretive materials on conservation issues at natural parks and open space areas.
6. Action: Create guidelines for buffering of development (i.e. less dense development within one mile of Saguaro National Park and Ironwood National Monument.

b. Policy: Employ innovative methods of protection and acquisition of biological resource areas.

1. Action: Evaluate methods to preserve open space including set-asides of scenic and conservation easements in developments requesting discretionary actions such as rezonings, annexations, and specific plans as described in the Draft HCP; transfer of development rights, clustered development leaving dedicated open space.
2. Action: Evaluate strategies to purchase open space through land exchanges, purchase of development rights, dedication of open space on behalf of the public (as occurs for road or utility right-of-ways) grants or other means of obtaining open space.
3. Action: Coordinate with homeowner associations for management of open space that is set aside as mitigation lands.
4. Action: Work cooperatively with other agencies to help secure incentives for landowner conservation and restoration of natural areas.

c. Policy: Create protected continuous open space linkages and viable wildlife corridors throughout the community.

1. Action: Implement the Draft Marana HCP conservation measures to conserve sensitive lands and prioritize open space acquisition.
2. Action: Integrate conservation measures into long-range planning and management of open space and recreation areas.
3. Action: Protect the viability of wildlife corridors mapped in the Draft HCP, using innovative site planning and design.

Goal 4: Create facilities such as trails and picnic areas within natural resource parks that are capable of supporting community events.

a. Policy: To provide technical and logistical support to non-profit "friends" organizations and individual volunteers.

1. Action: Assign Parks Department staff to serve as the liaison between the Department and the various "friends" organizations in the community.

b. Policy: Enter into innovative collaborations with other jurisdictions and agencies where appropriate for establishment and management of the open spaces identified in this Plan.

1. Action: Organize or/and participate in annual or more frequent coordination and planning workshops with other jurisdictions and resource management agencies.
2. Action: Work the Bureau of Land Management (BLM) to position Marana as the Gateway to the Ironwood Forest National Monument.

Goal 5: Use the community's open space system for the mandated protection of high value habitats and important wildlife populations.

a. Policy: Use the community's open space system to comply with mandated resource conservation and protection measures.

1. Action: Support implementation of the Draft Habitat Conservation Plan.
2. Action: Organize annual or more frequent coordination and planning workshops with other jurisdictions and resources management entities.

Goal 6: Use open space areas as multiple use lands, where appropriate, that conserve natural resources, provide opportunities for recreation, and function to protect the community from flooding and other natural hazards.

a. Policy: Incorporate into the community's open space system, where appropriate, lands that are subject to natural hazards such as floods.

1. Action: Evaluate riparian areas for their potential inclusion in the community's open space system.
2. Action: Prepare and propose revising the land development code to include standards that result in the protection of wildlife corridors, unique vegetation and other natural resources as a condition of development.

Goal 7: Preserve an open space corridor along the Juan Batista de Anza National Historic Trail to allow contemporary users to experience the environment with features that were present at the time of the Juan Batista de Anza Expedition.

a. Policy: Work cooperatively with the National Park Service and Pima County to construct the Juan Batista de Anza National Historic Trail through the Town of Marana.

1. Action: Use all available resources, including working with the Pima County Regional Flood Control District to secure the Santa Cruz River as an open space corridor and to construct the Juan Batista de Anza National Historic Trail.

Goal 8: Achieve a sustainable balance between the conservation, use and development of the area's natural resources.

a. Policy: Coordinate between the Parks, Recreation, Trails, and Opens Space and the Draft Habitat Conservation Plan for a cohesive vision of open space within the Town.

1. Action: Support State Trust Land reform to allow preservation of high-quality natural, undisturbed open space while encouraging development in less sensitive areas.

b. Policy: Preserve agriculture, livestock and equestrian lots in northwest Marana, especially focusing on floodplain land used for agricultural purposes.

1. Action: Provide landscaped buffer areas between agriculture and new development to reduce conflicts related to dust, noise, and odors. The buffers should be wide enough to allow for drainage and irrigation of farmland.
2. Action: Investigate methods to provide incentives to agricultural landowners interested in maintaining their lifestyle, such as purchase of development rights, conservation easements, and ways to promote the viability of local agricultural lands such as harvest festivals, rodeos, etc.
3. Action: Investigate the possibility of creating and Open Land District for floodplain land and clear zone areas around the airport.

c. Policy: Identify locations and opportunities for views of natural Sonoran Desert open space.

1. Action: Provide scenic view overlook areas along roadways and designated recreation areas.
2. Action: Review and update ordinance for hillside development.

Further Reading

American Trails - Your National Resource for Trails and Greenways. Web. 08 July 2010. <http://www.americantrails.org>.

Delaware NEMO: Guide to Natural Resource-Based Planning. Delaware Sea Grant College Program, 2005. Web. 8 July 2010. <http://nemo.udel.edu/manual/Chap4WebRv.pdf>.

"Open Space - NYS Dept. of Environmental Conservation." New York State Department of Environmental Conservation.Web. 08 July 2010. http://www.dec.ny.gov/lands/317.html>.

"Open Space 101 // LandScope America." Home // LandScope America. Web. 08 July 2010. <http://www.landscope.org/explore/open_space_101/>.

Colton, Arlan. Arizona Preserve Initiative: Effects of Urbanization in the Sonoran Desert. 26 July 2010. <http://ag.arizona.edu/OALS/urbanization/preserve.html>

Rosenzweig, Michael L. Win-win Ecology: How the Earth's Species Can Survive in the Midst of Human Enterprise. Oxford: Oxford UP, 2003. Print.

Draft Town of Marana Habitat Conservation Plan.

8.2.1. Introduction

The Town of Marana is rich with cultural resources, both historic and prehistoric. The Town has a long history of resources that provide value to this community. Two terms are used throughout this chapter. One term is "cultural resources". These are the physical artifacts and sites that were left behind for future generations. The other term is "heritage." When this chapter discusses heritage, it is talking about the history that is created by the discovery and interpretation of the cultural resources, providing a sense of place for the surrounding community.

8.2.2. Background

Marana's natural resources, the confluence of waterways, farmland, and a dramatic range of elevations has made this area attractive for settlement for more than 4,000 years. The people who settled left behind a rich legacy of cultural resources, including Yuma Mine, Los Morteros, Las Capas, Marana Mound, Dairy Site, and Costello King sites as well as a portion of the Juan Bautista de Anza Trail. The major rivers is southern Arizona, such as the Santa Cruz River, formed trade routes that were followed by Native Americans bringing shell from California, Spanish-era expeditions led by Father Francisco Kino and Juan Bautista de Anza, the forty-niners on their way to find gold in California, the Mormon Battalion, and the Butterfield Stage. Later, these same trails became the routes for the Southern Pacific Railroad (whose workers gave Marana its name), and our modern highway system.

Many archaeological sites cluster along the Santa Cruz River and in the area around the foothills of the Tortolita Mountains. The Hohokam culture thrived here from around 600-1400 A.D., using irrigation and flood-water agriculture to grow corn, beans, squash, cotton, and exploiting a wide variety of wild or "encouraged" plants such as agave and amaranth. Recent excavations in the Marana area have found evidence of irrigation canals dating back more than 2,500 years.

8.2.3. Desired Outcomes

Cultural resources are non-renewable and may only provide value when discovered and documented for future generations. As the Town of Marana continues to grow, it remains dedicated to the preservation and interpretation of its rich history as well as providing educational opportunities for the benefit of the community. The town will

look to support organizations such as the newly formed Marana Heritage Conservancy to help tell the story of our historical past and share with future generations the town's history. CIP projects that involve cultural resource components may provide heritage tourism opportunities when adequately documented and interpreted. Enhancing the Town's historical and archaeological sites through interpretation programs can potentially bring additional tourism to the Town, enhance the lifestyle of the Town's residents, and provide educational opportunities. The Town would also like to connect these cultural sites through green infrastructure and trails systems.

8.2.4. Existing Conditions

Marana's motto, "Committed to the future, inspired by our past," demonstrates the Town's dedication to balanced development with responsibility towards our non-renewable cultural resources. The Cultural Resource Ordinance (Ordinance 2003.05) was adopted by Marana to guide the preservation and treatment of cultural resources impacted or potentially impacted by private development. Before grading permits are issued, applicants must demonstrate that cultural resources are not present on their property, or that they are present but will not be impacted, or that they will be mitigated through archaeological treatment.

Marana's Capital Improvement Program (CIP) projects must undergo similar studies guided by local, state, and often federal statutes.

The Cultural Resource Preservation Board is an advisory board to Mayor and Council. The Board identifies Marana's cultural and historic sites, districts, and buildings, and develops methods to establish, enhance, and maintain them. They review proposals for historic and cultural restoration and/or renovation, add properties to the Marana Historical Register, and make recommendations for areas and properties that may benefit from a historic overlay zone.

The Santa Cruz Valley, in which Marana sits, is a unique and diverse region in the southwestern United States and encompasses a mosaic of cultures and history as well as spectacular natural, scenic, and recreational resources that reflect a unique contribution to the collective American identity. The history of the Town of Marana and southern Arizona has been shaped by our rich cultural heritage, events, and places. In 2003, the Town of Marana passed an ordinance to support the designation of the Santa Cruz River Valley as a National Heritage Area. This designation increased national and international recognition of the Santa Cruz Valley's diverse natural landscape and cultural heritage without requiring federal regulation of private property use. The intent of this designation is to bring together many currently separate efforts to preserve and promote the landscapes and cultural traditions that make this region unique.

The Juan Bautista de Anza National Historic Trail winds along the Santa Cruz River for approximately 17 miles through the Town of Marana and was designated as a national historic trail in 1990.

The trail was named after the route Anza and his charges took to San Francisco. The National Park Service oversees the trail. This segment of this route passes through Marana along the Santa Cruz River, while an Anza auto route has been designated along parts of Silverbell Road and other routes.

8.2.5. Current, Proposed, or newly completed projects

The Town of Marana completed the construction of Silverbell Road and the Crossroads at Silverbell District Park site in early 2010. The park is located at the corner of Silverbell and Cortaro Roads. Because this site was extremely rich in both prehistoric and historic cultural resources, this project required a large amount of archaeological work. The Town of Marana received various awards for the partnerships that were created and the work completed with Marana, the archaeology teams and contractors. The road's path followed an ancient thoroughfare along the Santa Cruz River replete with major Hohokam communities and historic ranches. Portions of the Yuma Wash Site (12th through 14th century) and the Bojórquez-Aguirre Ranch Site (late 19th through early 20th century) were preserved and will be interpreted within the park. The project incorporates a combination of documentation, careful excavation, education, and public outreach that ensures that our past will be available for future generations. The Town of Marana's commitment to it's past ensures that those who travel down Silverbell Road and visit our park will learn the stories of the people who passed this way before.

8.2.6. Opportunities and Challenges

Improvements that impact significant cultural resources involve major responsibilities, accountability, and may affect costs, and create delays in project schedules. The Town of Marana has embraced these challenges and remains committed to the goal of celebrating and preserving our heritage. The complexity and uncertainty of cultural resources is always challenging to overcome. The work often includes many organizations and approvals prior to the start of construction. The size and number of the archaeological sites, which may extend beyond previously known limits, continue to challenge the schedule and budget for some construction projects within the Town. These sites may be seen as an opportunity for interpretation and education for the future of Marana as the town may include elements of the past into the future private and public projects in Marana. This will provide a constant reminder for the future generations of Marana that we have inherited a rich heritage

along the Santa Cruz River and our upland desert. Transportation, farming, trade, and water brought settlers and travelers to our town in the past, just as they do today.

8.2.7. Issue Identification and Trends

The size and number of archaeological sites in Town, which may extend beyond the previously known limits, continues to challenge the schedule and budget for construction projects within the Town.

The Town's vision for the preservation and interpretation of the prehistoric and historic sites includes preservation of the western and ranching heritage of this community. The Town plans to identify the significant cultural sites with a goal of preservation or interpretation depending on the significance. The Town of Marana has a rich agricultural community that includes farming and ranching that has the potential for development in the future. The development of these lands provides the opportunity for the interpretation of cultural and heritage sites for the future.

8.2.8. Strategic Direction

As new developments move forward there will be the constant diligence in identifying the cultural resources within them. The Town will continue seeking opportunities for projects that contain resources that provide value to the community such as the development of the Juan Bautista Historic Trail, will continue as the Town grows. This historic route will continue to provide people with the opportunity to walk along a historic trail and learn about the journeys of the past.

The Town will also seek private development opportunities for the community to learn about the rich resources of the area. This may include incorporating historic or other archaeological features into the design of the project or it may include the interpretation of features or events. Title 20 of the Land Development Code, the Protection of Cultural Resources will continue to implemented and updated to maintain the values and goals for the future of this community. The Town will also work to identify and preserve sites that may be at risk and nominate significant features for the National Register of Historic Places. The Town will also work to obtain Certified Local Government status, and reinstate the Cultural Resources Board.

8.2.9. Goals, Policies and Actions

Goal 1: Protect and conserve cultural resources.

a. Policy: Protect areas of significant cultural resource value.

1. Action: Establish, create goals, and meet the schedule of the Cultural Resources Board. Appoint new members as necessary.
2. Action: Identify and prioritize the current and future listing of significant cultural resources on Town-owned and other public lands.
3. Action: Identify and preserve those resources that are high priority and in danger through erosion, development, looting or other impacts.
4. Action: Identify those resources that would benefit the Town through interpretation programs.
5. Action: Establish criteria for inclusion of cultural resources on the Marana Historical Register and nominate significant cultural resources to the Register.
6. Action: Apply for Certified Local Government (CLG) status from the State Historic Preservation Office. Once established, this status can be used as a source of funding for cultural resources preservation programs.
7. Action: Establish a Site Steward program in partnership with Pima County to increase protection of cultural resources and encouraging citizen participation in the preservation process.

Goal 2: Preserve, protect and interpret historic sites in the Tortolita Mountains and elsewhere that date back to the prehistoric settlement of the area and speak to the origins of the local ranching and farming industries.

a. Policy: Protect all known pre-historic and historic cultural resource sites in the community including those related to the origins of the farming and ranching industries.

1. Action: Conduct sample surveys to establish the scope of cultural resources in the Tortolita Mountains and elsewhere and focused surveys in the vicinity of proposed development sites.
2. Action: Work with and encourage Marana Residents to become cultural stewards of local resources.

8.3.1. Introduction

The Water Resource Element describes how water resources are tied to the overall development of the Town of Marana. Each aspect of development within any community is tied directly or indirectly to the availability of adequate water resources. The Utilities Department works closely with Development Services to develop a Capital Improvement Plan and Operational Plan to support the short term and long term goals of the community.

The Town's water portfolio consists of an integrated system of potable water deliveries to residences and businesses, future wastewater services and planned non-potable deliveries for irrigation of rights-of-way, general outside uses and unidentified industrial uses not currently required. The integration of this portfolio minimizes the potable water infrastructure by limiting it to what is necessary for potable purposes. This approach also reduces the need to recharge water or use expensive potable supplies where it is unnecessary. The Water Resource element will cover water resources limited to potable water, wastewater and non-potable water. Storm water and irrigation water will be covered within the Natural Systems element of this General Plan.

Water conservation is an integral element of planning for adequate water resources. Water saved is available for future residents and developments and reduces the department's regular operation and maintenance costs. Extended conservation over years changes the gallons per capita per day the Town plans for and ultimately reduces the size of water infrastructure necessary to serve its customers. The overall affect is that the Town's water rates are kept as low as possible.

Providing water services to the community requires integrating local, county, state and federal requirements for water service. Examples include the Safe Drinking Water Act, the Clean Water Act and rules regarding delivery of water within Arizona administered by the Arizona Department of Water Resources. Definitions of terms attributable to these rules are included within the glossary of this document.

8.3.2. Background

Residences and commercial water customers receive water from The Town of Marana, Tucson Water, several small water providers or they are on private or shared wells**.** (See Water Resources Map, page 8.3.A.) Tucson Water provides

water to the majority of the residential and business community in the Town as of 2010.

The current Town of Marana water system is a combination of water systems purchased in 1997 along with infrastructure constructed and donated to the Town by developers to serve new areas. The original system served approximately 1100 customers from a combination of seven to nine wells.

The Town has an assured water supply issued by Arizona Department of Water Resources (ADWR) in 2007. This assured water supply is renewed every ten years with ADWR; the Town's recognized assured supply need until 2017 on record with ADWR is 7,580 acre feet. Key elements of this water assurance are the 1528 acre feet of Central Arizona Project (CAP) surface water rights and the Town's contract with the Central Arizona Ground Water Replenishment District (CAGWRP). The Town's contract is an unlimited contract, this requires CAGRD to find and replenish an equal amount of water which the Town withdraws from the Tucson Active Management area aquifer within three years after it is pumped.

The Town of Marana entered into an Intergovernmental Agreement with Pima County for wastewater services in 1977. In 2007 the Town notified the County of its intention of providing wastewater services. Litigation between the Town and Pima County has ensued since then, at this time the Town has the right to certain portions of the collection system when it has a facility to treat the wastewater.

8.3.3. Desired Outcomes

Development of a community which yields a location providing a place to live, work, play and grow a sustainable community life is the goal of Marana. Marana is located within the area designated as the "Sun Corridor". This area is expected to contain over 10 million people by the year 2030. Creating a full service community can cut down on commute times and costs allowing Marana's residents to spend more time enjoying their families and community.

The Town is uniquely located within the Tucson and Tortolita mountain area which includes the confluence of the Santa Cruz River and the Canyon Del Oro and Rillito washes, bisected by Interstate 10 and Union Pacific Rail Road. This unique area provides businesses with an ideal location due to the availability of transportation, housing, educated workers and a diversified community in which to build. It is the function of the Utilities Department to develop water infrastructure to provide adequate service to this region.

The Water Master Plan is the roadmap used to assure that adequate services are developed in the right place at the right time. The planning documents considered and integrated include the General Plan, the Town's Strategic Plan, the Economic Roadmap, the Tres Rios Del Norte Plan, the Draft Habitat Conservation Plan, and the Parks and Recreation Master Plan. This integration of documents enables the Utilities Department to develop adequate infrastructure which is concurrently planned with development. It also encourages partnerships with various departments so that the placement of infrastructure meets community goals, including the protection of areas for endangered species and providing for adequate and appropriate resources for parks.

The Town's potable water delivery system is described within the 2010 Water Master Plan. This document allows for the current conditions of water service provision by the Town, Tucson Water, Metro Water, and the potential of small private water companies.

The Town's plans for wastewater services are documented within the Sewer Basin Study and within the Town's submittal to the Pima Association of Governments and Central Arizona Association of Governments for a Regional 208 Plan Amendment. These plans summarize the Town's goals and objectives as the Designated Management Authority for wastewater provision within its defined planning area.

The integration of non-potable as a water source is imperative to effectively plan water use for the future. Future non-potable water will be the result of effective and efficient wastewater treatment, which is delivered through the Town's non-potable delivery system. This water does not have to recharged annually and it directly reduces the potable infrastructure (wells and distribution system) necessary to provide potable water to residents and businesses within the community. Wastewater and subsequently non-potable water are the only water sources which increase as a community grows.

8.3.4. Existing Conditions

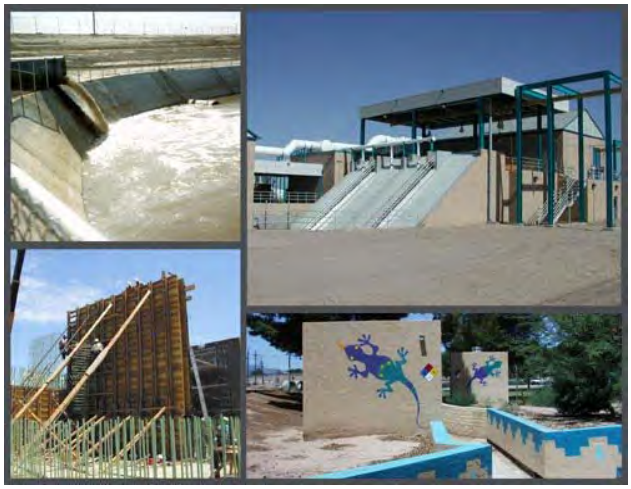
Tucson Water is the largest potable water provider within the Town at this time. They provide service to the Continental Ranch and Dove Mountain area. As of 2010, Tucson serves approximately ten thousand customers within the Town of Marana (see Water Resources Map on page 8.3.A). Tucson uses a

combination of ground water and surface water. As a large municipal provider, Tucson relies on a redundant water delivery system, integrating multiple water resources and looping infrastructure to provide operational flexibility.

The Town of Marana consists of approximately fifteen to seventeen thousand potable water service connections, of these, 5600 are provided by the Town with the majority of the remainder provided by Tucson Water. As mentioned above, there are also several smaller private potable water providers within the community at this time. Currently all potable water delivered by the Town is well water. According the Arizona Department of Water Resources regulations, the Town must recharge water annually within a Central Arizona Water recharge basin located within the Town's limits.

The Town owns and operates nine individual water systems containing 21 wells, 19 boosters, 18 reservoirs and 110 miles of infrastructure. Several of these systems rely on a single water source therefore it is imperative that this water source is operational around the clock, every day of the year. Redundant wells to support the water systems are one of the Utility Department's objectives. Redundancy may seem like a luxury but is imperative to the long term operation of a system because it allows the Utilities Department to remove a well from service, perform preventative maintenance and still keep the system in optimal operation without long outages due to emergency failures. Therefore, the 2010 Water Master Plan indicates that over time the Department will develop capital improvement projects, which connect these systems providing a more sustainable and redundant water system to the area it serves.

All publically provided wastewater services are currently provided by Pima County Water Reclamation. Two reclamation facilities provide service, the Marana and Ina Road Water Reclamation Facilities. The Marana facility is a 700,000 gallon a day facility located within the north Marana area and serves areas including Gladden Farms, Rancho Marana, San Lucas, the Marana Main Street area and the Town's Municipal Complex.



The Ina Road facility is a 35 million gallon a day facility (MGD) and serves the Dove Mountain, Continental Reserve, Continental Ranch, and southern Marana areas as well as Oro Valley, many areas of Tucson, and unincorporated Pima County. The Ina Road facility is undergoing major improvements as part of Pima County's Regional Optimization Management Plan. Pima County has

announced an anticipated overall wastewater rate increase of approximately forty percent in the next four to five years to support this effort.

Non-potable water is currently plumbed within several northern Marana communities, rights-of-way and general irrigation areas. At this time a non-potable source is unavailable therefore the potable water system is providing water to this system.

8.3.5. Current, Proposed or Completed Projects

Between 1997 and 2009, the Town of Marana purchased much of its existing water system from the Cortaro Marana Irrigation District (CMID) through an Intergovernmental Agreement (IGA). In 2009 the Town and CMID dissolved their original IGA and the Town purchased seven wells from CMID. This mutually agreeable and beneficial arrangement enables each organization to move forward independently and in a manner which is most effective for their sustainability.

The Town is bisected by the Union Pacific Railroad (UPRR), in the 1960's a waterline was installed under the railroad tracks. During the construction of the second rail it was discovered the line needed replacement. In the spring of 2010 a new waterline was constructed under the original and planned expansion tracks of UPRR. The replacement of this line improves the continuity and reliability of systems on both sides of the UPRR tracks.

The Twin Peaks Interstate 10 interchange and complementary Twin Peaks eastern extension (aka Camino de Manana) roadway projects are the largest Capital Improvement Projects the Town has ever undertaken. The installation of waterlines which extend the current water system to the west side of the Santa Cruz River and along the Twin Peaks alignment to Blue Bonnet Drive are an integral part of both projects and will allow the Town to provide water service to additional residential and commercial businesses.

In 2010 the Town's CIP document was amended to incorporate the necessary transmission lines and water treatment plants anticipated to provide adequate potable water service for future developments as identified within the Water Master Plan. The projects have been added to provide an extension of water infrastructure to provide for future planned development in an area that currently lacks infrastructure.

The CIP also includes rehabilitation of aging infrastructure within the Town's current potable water system. Several older communities continue to be served

by original infrastructure now approaching its fourth decade of service or more which did not provide for current required fire flows. The Town anticipates replacing aging infrastructure and upgrades to these areas to include fire flow capacity.

8.3.6. Opportunities and Challenges

The Town of Marana purchased its water service areas over the last 13 years; some of these areas are located outside of the Town's existing and future planning boundaries. Water service is extended outside the Town's defined water service area per the adopted water service policy.

Tucson Water currently provides water service to over ten thousand connections within the Town limits. The Town will continue to evaluate opportunities to acquire and/or work towards acquiring area within the Town's jurisdictional limits or general planning area. The Town is currently working with the City of Tucson to develop a mutually beneficial method of delivering water to customers within the Town of Marana's jurisdictional limits, which are outside to Tucson's perceived obligated service area.

The 2010 Water Master Plan estimates the Town's potable water deliveries are over sixty thousand acre-feet annually to its service area. This estimate excludes the Tucson Water service area. At this time, the Town owns 1,528 acre-feet of surface water and is a member of the Central Arizona Ground Water Replenishment District as a Member Service Area and without a cap on its water delivery.

As an agricultural community, many land owners have water rights associated with the land they farm. As these lands are developed it is a requirement of the Town to provide potable water service, and that these water rights are transferred to the Town for the provision of potable water.

The Town is aggressively seeking additional surface water allocations. This includes participation within the Central Arizona Project Acquire Develop and Deliver (ADD) Water Project. The purpose of CAP's ADD water program is to develop a shared process with the tri-county water service area of Pima, Pinal and Maricopa counties to determine when new water supplies need to be acquired and what entities receive the supplies. In its capacity as lead agency, CAP established a process of fair and open discussion

and participation by all stakeholders. The Town will continue to be a part of the ADD water process as it moves forward. The Town is working with consultants to find potential water vendors and is preparing for discussions with representatives of the Gila River Indian Community regarding potential long term leases of water rights.

Unfunded federal mandates regarding new drinking water rules and regulations could be problematic for the community in the future. The high quality of the Town's water does not currently require any additional treatment for regulated contaminants such as Nitrates or Arsenic's. In the future, however, changes to the Safe Drinking Water Act to reduce the limits for current and future contaminants increase the probability of site specific treatment increases. These future requirements will make the system more costly to operate and could affect rates. This impact will, of course, affect all water suppliers. The Town actively participates in groups like the American Water Works Association and the Western Area Coalition of States to ensure law makers in Washington understand the unanticipated and unintended outcomes of their decisions on desert communities such as Marana.

In 2009 the Town of Marana initiated an amendment to the Pima Association of Governments 208 Areawide Plan to become the Designated Management Agency for wastewater services within the planning area. Currently Marana is looking at locating the first wastewater reclamation facilities in northern part of Marana's planning area. This facility could provide wastewater services and non-potable water to Northwest Marana and possibly the Dove Mountain areas. Additional wastewater facilities will be built as needed to support development.

The Town is always looking for opportunities to decrease costs to residents. The Bureau of Reclamation (BOR) owns 28,200 acre feet of effluent based on the Southern Arizona Water Rights Settlement Act (SAWARSA). This effluent currently flows through Marana along the Santa Cruz River course and is a portion of the discharge from Pima County's Ina Road WRF. The BOR will receive only a fraction of the water in recharge credits due to the lack of a constructed recharge facility. The Town is looking at mutually beneficial opportunities to partner with the BOR to more effectively and efficiently utilize this effluent. It will provide the BOR either additional recharge credits or income from the sale of this effluent as direct reuse water.

8.3.7. Issue Identification and Trends

In 2007 the global economy changed, building nearly came to a halt, homes have been foreclosed upon and unemployment is higher than it has been in decades. In response, consumer habits have changed, they are using less water

than before. If this trend continues, the benefit will be to stretch existing water resources.

Conservation is increasing. Conservation includes planting xeriscape gardens, rain water harvesting, and replacing high water use fixtures in homes and businesses. The Town participates in the Modified Non-per-capita Water Conservation Program. This is an Arizona Department of Water Resources regulated conservation program. Some of the management practices to promote conservation within the Town include:

- Tiered water rates; this discourages high water use for outdoor landscaping and water features.
- Routine messages in customers water bills; the Town displays conservation messages within the banner section of the water bill at various times of the year.
- New homeowner landscape information; conservation packages including information on watering schedules, types of plants and other water conservation information is provided to new home owners.
- Residential Audit program; the department offers a free water conservation audit to any water customer and encourages this service if a water bill is unusually elevated.
- The Marana Municipal Operations Complex has a xeriscape demonstration garden located at its facility to provide ideas for effective landscape design to its customers.

- Implementation of emerging technology;
    - The Department audits several of its installed meters annually to ensure the accuracy of the meters is within the acceptable range based upon American Water Works Association Standards. If they are out of range, meters are replaced.
    - The Department utilizes automatic meter recording devices which allow for ease of reading but also record hourly usage. This is helpful in water audits to evaluate the potential source of excess water usage.

The Town will continue to promote the use of non-potable water within the Town's rights-of-way and within outdoor public irrigated areas. Due to Marana's dry climate, outdoor water use within the Town is between 40 to 60

percent of the overall water demand. Appropriately using non-potable water in lieu of potable water saves precious potable water for drinking purposes and reduces overall water costs for treatment and testing.

8.3.8. Strategic Direction

The Town's development of a comprehensive Water Master Plan, integrated with the Sewer Basin Study reflects the Town's commitment to creating a sustainable community. It supports the various business opportunities within its borders while ensuring a lifestyle which encourages outdoor exercise, partners with environmental groups to retain and develop environmentally sensitive areas and protects endangered species. The Town encourages development to build in a contiguous manner thereby minimizing the number of additional isolated water systems and minimizing overall infrastructure, initial capital, and long term operational costs. Developing a comprehensive water portfolio to provide the appropriate water resources for the desired use maximizes effective and efficient application of limited resources.

The Utilities Department is looking to the future and to continuing the strong partnerships with the Capital Improvement Program and Development Services Department to ensure cohesive infrastructure extensions and planning for the anticipated growth of Marana.

8.3.9. Goals, Policies and Actions

Goal 1: Acquire the water resource supplies needed to serve Marana at build out and adopt policies and practices to ensure all resources are in place ahead of need.

a. Policy: Maintain an assured water supply to accommodate future growth.

1. Action: Continue the legal process to secure rights to effluent.
2. Action: Consider acquisition of City of Tucson water system located in Marana.
3. Action: Identify and consider options for resource acquisition and infrastructure improvement.
4. Action: Periodically update the adopted Town of Marana Water Master Plan.
5. Action: Obtain all possible CAP water and implement CAP for potable water use or recharge and recovery, whichever is the most economically feasible and reliable.
6. Action: The Town shall endeavor to implement the strategies identified in the Arizona Department of Water

Resources Third Management Plan to assure proper use of conservation of area water resources.

Goal 2: Support the fiscal policies adopted by the Town of Marana in the operation of the Utilities Department.

a. Policy: Promote the evaluation, development and updating of fiscal policies which support the effective and efficient operation of the Utilities Enterprise Operation.

1. Action: Annually review the Pima County CIP for roadway improvements which may impact Utilities.
2. Action: Annually review and update the Marana Capital Improvement Plan for the Utilities Department to ensure it coincides with recent and planned changes in local development.
3. Action: Update water rates and impact fees at least every two years to ensure appropriate coverage for current and future customers.
4. Action: Identify alternate/outside funding sources to support Town conservation programs (including grants).
5. Action: Rehabilitate and upgrade water systems as needed to ensure proper operation.

Goal 3: Protect and enhance community water quality.

a. Policy: Continue to monitor and provide water which meets or exceeds regulations.

1. Action: Continue to meet and exceed the water quality requirements of the Safe Drinking Water Act and Clean Water Act, State, Local, and all other regulatory requirements.
2. Action: Continue to monitor and maintain the Town's aquifer resource.
3. Action: Continue to implement the Town's stormwater management plan.

b. Policy: Provide for the orderly expansion of the water supply and sewerage systems within the community.

1. Action: Comply with all State and Federal regulations in the development of facilities.
2. Action: Develop policies, practices and Water and Sewer Service Agreements so that growth pays for growth.
3. Action: Require developers to pay for a hydrological modeling for new developments for water volume and pressure.

c. Policy: Provide water and wastewater services in a manner which is fiscally responsible and ties to the Towns adopted Strategic Policy.

1. Action: Construct water storage, recharge, and wastewater treatment facilities for the Town to benefit the community at large as well Marana residents.
2. Action: Control costs by appropriately sizing water infrastructure.
3. Action: Establish cooperative management plans with landowners and other stakeholder parties near water and wastewater facilities to ensure appropriate conservation practices.

Goal 4: Promote water conservation within the Town.

a. Policy: Develop codes, policies and practices to meet the Town's obligation to reduce water usage.

1. Action: Review and propose new codes and/or amendments for water conservation and development of new resources.
2. Action: Develop, implement and monitor a comprehensive water conservation program within the Town's water service areas. Develop local and where practical regional education programs for the public and build awareness of water issues.
3. Action: Develop a Town program for minimizing groundwater use. Methods may include non-potable water utilization for landscaping, gray water use, and water harvesting.
4. Action: Identify cost and scope of landscape redesign at the Marana Municipal Complex to incorporate xeriscape landscape design.
5. Action: Encourage all public and private development to adhere to its drought tolerant vegetation list on their private property and incorporate additional water conservation techniques and monitoring programs in new development areas.
6. Action: Disseminate information to the public on personal conservation techniques, including low flow fixtures, rainwater harvesting, irrigation, and other programs.
7. Action: Develop and implement permaculture and rainwater runoff harvesting guidelines for homeowners and businesses. Conduct outreach programs to disseminate this information throughout the community.

8. Action: Encourage agriculture and other large industrial and commercial users to transition to use CAP and non-potable water.
9. Action: Evaluate the opportunity to develop a pilot program to install two meters in pilot area homes to measure indoor versus outdoor water use separately in cooperation with the Water Conservation Alliance of Southern Arizona's (or equivalent) research projects.
10. Action: Promote the use of low flow/drip/best practices irrigation systems for common area landscaping for all public spaces.
11. Action: Require that all landscaping planted in a publicly owned right-of-way (served by groundwater) may only include plants from the Arizona Department of Water Resources Low Water Use/Drought Tolerant Plant List for the Tucson Active Management Area (AMA).

Goal 5: Support the endeavors of habitat and species restoration and rehabilitation within the Town.

a. Policy: Promote habitat and species rehabilitation at water facilities.

1. Action: Support restoration of wetlands and biological diversity in appropriate areas.
2. Action: Continue work to restore and establish native riparian vegetation that can survive once recharge operations cease.
3. Action: Work to identify and monitor wildlife and vegetative resources associated with effluent dominated streams.

Goal 6: Develop wastewater systems which support the overall objectives of the Town and encourage reuse.

a. Policy: Site and construct wastewater facilities to encourage reuse and recharge.

1. Action: Maintain adequate levels of wastewater service by preserving and improving infrastructure, including replacing sewer mains as necessary.
2. Action: Require an Ability to Service letter for both water and wastewater capacity for acceptance of an application for new development.
3. Action: Implement creative wastewater treatment alternatives, including urban reuse, and compare these various alternatives for wastewater treatment implementation based on their construction and

operational cost-effectiveness. Consider wetlands construction as one alternative.

4. Action: Review requirements for development projects as to when and how lots connect to the nearest sanitary sewer.
5. Action: Discourage septic systems especially within areas adjacent to priority watercourses, recharge projects and sensitive habitat areas.
6. Action: Implement requirements for a cost benefit analysis for the extension of public sanitary sewer into projects that propose use of septic systems.
7. Action: Investigate renewable resource mitigation fees to offset loss of effluent credits in septic systems.
8. Action: Review existing regulations for septic systems and consider standards such as a minimum one acre net lot size (43,560 square feet of lot area) and alternative septic systems for lots of less than two net acres.
9. Action: Consider standards and incentives for recycling gray water on residential lots where sanitary sewer is not available.
10. Action: Implement pilot effluent recharge projects through cooperation with other effluent owners.
11. Action: Identify and implement the most effective methods of reusing and recharging non-potable water.
12. Action: Identify opportunities to extend non-potable water usage with each public and private development based on current and future non-potable water availability.

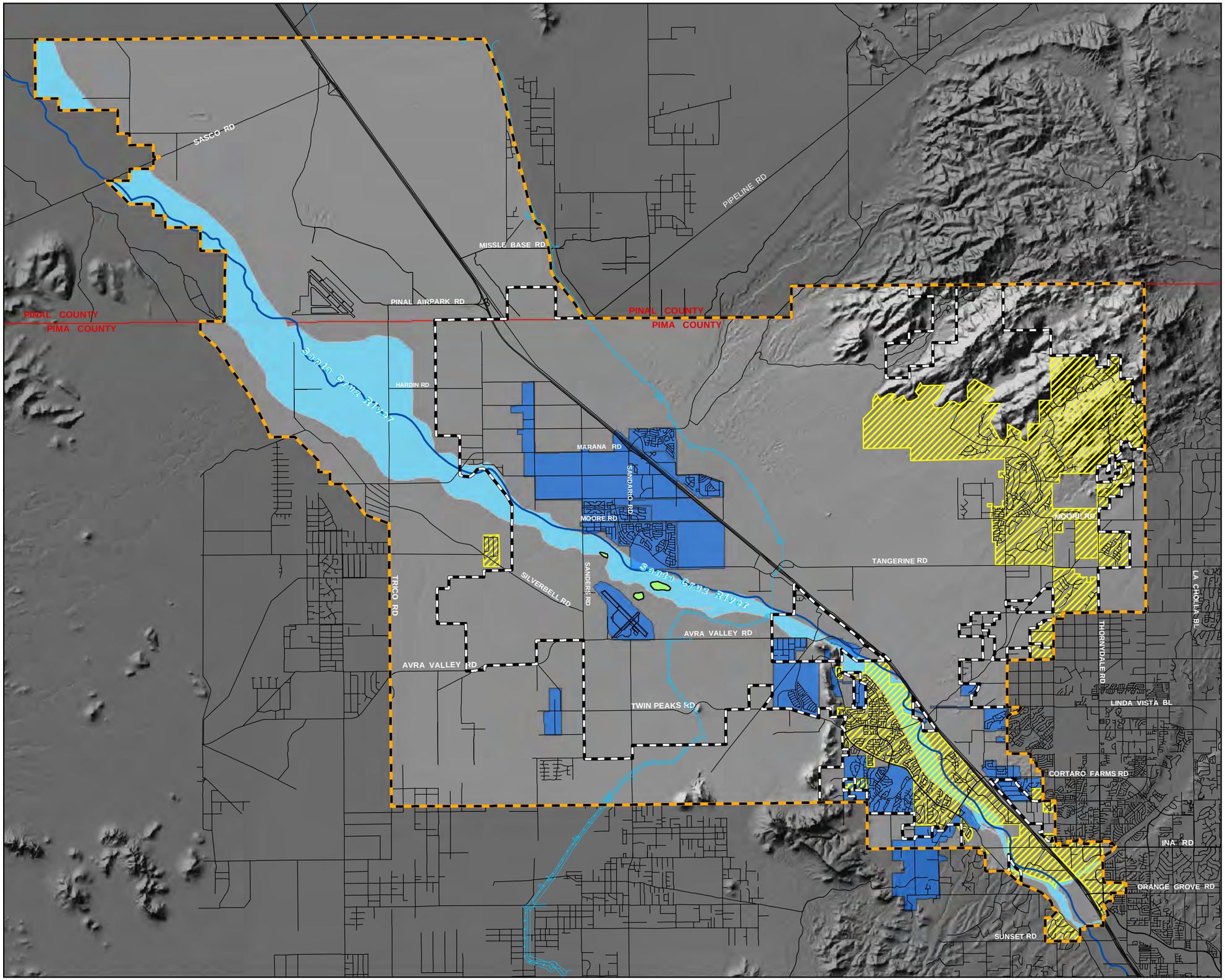
Goal 7: Support cooperation with other water and wastewater providers both within the region and nationally for the benefit of the area.

a. Policy: Evaluate opportunities to partner with others in water and wastewater planning.

1. Action: Work with Tucson Water Department, Metropolitan Water Improvement District (Metro Water), Flowing Wells Irrigation District, Oro Valley Water Utility, Southern Arizona Water Users Association, Pima Association of Governments, Water Conservation Alliance of Southern Arizona, Cortaro Marana Irrigation District, Arizona Department of Water Resources, and other agencies that have successful public programs in place.
2. Action: Support conservation legislation from other agencies and jurisdictions such as Pima County's 208 Area Wide Water Quality Management Plan, Watercourse and Riparian Habitat Protection and Mitigation Requirements

Ordinance, Drought Plans, and Floodplain and Erosion Hazard Management Ordinance.

3. Action: Assess the cumulative impacts of development on water resources within the Town and the region as a whole.
4. Action: Develop a cooperative plan between the Utilities Department and other Town Departments which allows resources to be shared when practical and cost effective.
5. Action: Actively participate within the Southern Arizona Water Users Association, Western Area Coalition of States, American Water Works Association, Water Environment Federation, AZ Water Association and other local and national organizations as appropriate to ensure water, wastewater and non-potable water concerns of the Town are heard in a unified voice.
6. Action: Participate on water resource management committees and on legislation for water planning issues
7. Action: Coordinate water availability, distribution, pressure, and quantity issues with safety requirements for area fire districts and other jurisdictions.



MARANA

2010 General Plan

8.3.A Water Resources

- Marana Water Service Area
- Tucson Water Service Aera
- Santa Cruz River Floodway
- CAP Canal
- Recharge Basins
- Planning Area
- Marana Town Limits
- Pima/Pinal County Boundary

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Data Disclaimer: The Town of Marana provides this map information "As Is" at the request of the user with the understanding that it is not guaranteed to be accurate, correct or complete and conclusions drawn from such information are the responsibility of the user. In no event shall The Town of Marana become liable to users of these data, or any other party, for any loss or direct, indirect, special, incidental, or consequential damages, including but not limited to time, money, or goodwill, arising from the use or modification of the data.

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8.4.1. Introduction

Marana recognizes the importance of energy resource planning for the 2010 General Plan and has devoted a chapter to begin evaluating the Town's energy infrastructure and approach to renewable energy. This Energy Element addresses consumption and conservation, renewable and non-renewable energy sources, alternative fuels, and sustainable or 'Green' development and construction. Identifying reliable and affordable energy supplies to meet the Town's future goals, plays an important role in maintaining and improving the economic vitality of Marana.

8.4.2. Background

Marana is in the early stages of creating an energy program, therefore the discussion in regards to Marana's role in creating the Town's own energy future has just begun. This chapter identifies goals, policies and actions that represent the Town's beginning steps towards developing its own energy future.

8.4.3. Desired Outcomes

Marana plans to promote and protect the economic, environmental, and social health of the community through the responsible use and development of energy. Establish and implement policies and practices that improve the sustainability of our community. Promote and support the efficient use of existing energy resources and encouraging greater use of renewable energy sources.

8.4.4. Existing Conditions

Arizona's Energy Policies

Arizona recognizes energy as an important issue and has enacted several energy policies including a Climate Change Action Plan to reduce green house gas emissions, and enabling legislation to give local governments the power to regulate solar access and to adopt solar building codes.

<u>Arizona's Climate Change Action Plan</u>

Executive Order 2006-13, signed in September 2006, sets a goal for the state to reduce Greenhouse Gas (GHG) emissions to year 2000 levels by 2020, and to 50 percent below year 2000 levels by 2040. The order creates a Climate Change Executive Committee that will develop a strategy to implement the State's Climate Change Action Plan, which includes a variety of

renewable energy and energy efficiency policies. Executive Order 2006-13 did a number of things to set Arizona on the path toward reducing its GHG emissions, including:

- Directing Arizona Department of Environmental Quality (ADEQ) to develop a GHG emissions reporting mechanism;
- Directing ADEQ to work with other states to establish a GHG emissions registry;
- Directing ADEQ to adopt and implement the California "Clean Car" GHG vehicle emissions standards;

Arizona Revised Statutes Solar Laws – Solar Site Planning In Subdivisions

Solar planning considerations were first enacted by the Arizona Legislature in 1979. The Legislature gave local governments the power to allow solar access and to adopt solar building codes. The 1980 Legislature passed laws voiding the prohibition of solar energy devices by future deed or covenant restrictions. The Arizona Department of Administration was also required to consider the use of solar energy in all new, large state buildings. The statute providing for municipal general plans *[A.R.S. § 9-461.05]* specifically states that the Land Use Element shall include consideration of access to incident solar energy for all general categories of land use. Conventional land use controls may be used to provide for and protect solar access in new residential development for space heating, cooling, domestic hot water, and electrical generation.

Providing for and protecting solar access means regulating development in such a way that streets, lots, buildings, and vegetation provide the maximum access to sunshine. It also means allowing for the prevention of non-beneficial sunshine. Whereas the position of the sun at any given time or date is predictable, planning and protecting solar access means regulating the direction and length of shadows. This is closely related to traditional land use and building regulation for protection of access to light, air, and views.

Non-Renewable Energy

The power supply in southern Arizona comes largely from coal, nuclear, and hydroelectric power plants. Marana's electric power is provided by Tucson Electric Power and TRICO Electric Cooperative.

Where Does Marana Plug In?

Marana **does not** currently generate any power. Like the majority of municipalities in southern Arizona, Marana currently receives its energy from outside sources, which are largely from non-renewable sources.

Renewable Energy

Solar Power Generating Electricity

Communities in Southern Arizona have high summer energy demands. Use of small-scale renewable energy systems such as solar can result in substantial energy savings during summer months. Although Arizona is often referred to as the 'solar capital of the U.S', actual reliance on solar energy is minimal. However, solar power generation has tremendous potential to afford the Town with sustainable and renewable energy resources for the future. The passage of a Renewable Portfolio Standard (RPS) to increase development of renewable energy resources, particularly solar, has resulted in large scale solar projects currently under construction across the state. The RPS requires that utility companies obtain nearly one percent (1%) of their power from renewable energy, half of which must be generated from solar radiation.

The best way to plan for and protect solar energy is to incorporate a concern for solar access into the regular planning procedure. Planning is absolutely necessary to support the regulatory activities that are certain to be required for protecting solar access (or solar rights). Land use control decisions must be consistent with the general or comprehensive plan. As in other regulations that benefit some landowners while placing restrictions on others, court challenges are expected. A well documented plan for solar access is necessary to show that there is a rational and fair basis for imposing the regulations.

8.4.5. Current, Proposed, or Completed Projects

Energy Efficiency and Conservation Strategy

Marana is developing an Energy Efficiency and Conservation Strategy that will serve as a resource for the town to guide the policy development process. The Town has been working with a number of agencies towards this end.

The Town of Marana will be using funding allocated through the Arizona Department of Commerce to develop the strategy to serve as the guiding document for initiating energy savings projects and programs.

Pima Association of Governments (PAG)

Pima Association of Governments, a council of government jurisdictions in Pima County which deals with regional planning and distribution of state-shared revenues.

Environmental Planning Program

Pima Association of Government's (PAG) Environmental Planning Program is designed to build awareness of energy alternatives within the region. PAG manages two (2) energy related programs: The Tucson Regional Clean Cities program and the Southern Arizona Regional Solar Partnership. The Clean Cities program is from the U.S. Department of Energy and is intended to increase the transition from transportation sources that utilize gasoline and diesel fuel to accelerating the use of alternative fuel vehicles. It also promotes establishing associated refueling infrastructure for these vehicles. PAG works with local businesses and governments to establish a viable alternative fuels market to reduce dependence on oil and reduce vehicle emissions. The Southern Arizona Regional Solar Partnership (SARSP), formed in 2008, is a cooperative effort between local government, businesses, and individuals to encourage the use of solar power in the region. The partners work to increase the use of solar energy by partnering with local electric utilities, solar manufacturers and installers, to increase awareness and educate the public about the benefits of solar energy.

Greenhouse Gas Emissions Inventory

Greenhouse Gas

Scientific consensus now exists that greenhouse gas accumulations due to human activities are contributing to global warming with potentially catastrophic consequences (IPCC 2007). International and domestic climate policy discussions have gravitated toward the goal of limiting the temperature increase to 2°C to 3°C by cutting greenhouse gas emissions by 60 to 80 percent below 1990 levels. The primary greenhouse gas is carbon dioxide, and every gallon of gasoline burned produces about 20 pounds of CO_2. ULI

The Town of Marana and the Pima Association of Governments (PAG) are conducting the Greenhouse Gas Emissions Inventory to more precisely determine existing conditions. This inventory will assess municipal operations such as building energy uses and fuels used for fleet vehicles. This inventory will also include community wide government operations.

8.4.6. Opportunities and Challenges

ARS Statutes - Solar Access in Subdivisions

Solar access is the availability of, and access to, unobstructed direct sunlight. It can be protected by using the existing authoritative power or through private development agreements using covenants or easements. Zoning, subdivision regulations, environmental impact statements, and transportation planning can also be used to protect solar access. The directional placement, width, surface materials, and landscaping of streets and rights-of-way can have a substantial impact on protecting solar access, as well as reducing the amount of heat generated by streets. Solar planning, like many other forms of planning, frequently involves political decisions. Communities must choose the level of regulation suitable for local policies and develop alternatives within a solar access plan that ensure the appropriate balance of

police power and property rights while accomplishing energy conservation and solar energy utilization.

Starting With What We Own/Control

The town will lead by implementing its own energy conservation measures and employing energy conscious designs in public facilities and operations including the selection of capital items such as vehicles and equipment.

Alternative Energy Sources

Alternative and renewable energy sources include solar, wind, biomass and biofuels. Residential, commercial, industrial, and transportation-related developments present practical options for the town. Existing residences have potential for design retrofitting to accommodate solar-generated power.

Increased utilization of alternative energy sources and identification of public-private partnerships will be essential in this process. Energy Savings Performance Contracting (ESPC) will enable energy efficiency upgrades to existing facilities without incurring substantial cost investment. ESPC typically identifies a third party company that installs the upgrades at minimal cost. An agreement between the Town and a contractor would entitle them to share in cost savings. The Town will demonstrate leadership in the use of solar technologies. Solar System Service Agreements will enable acquisition of solar systems at greatly reduced costs. Installation companies will also benefit from tax incentives and rebate programs.

Solar – The Energy of Choice in the Desert

Arizona has an abundant supply of sunshine and is ideally suited to take advantage of opportunities in solar energy development. Through effective land use planning, Marana can provide for solar access in new residential and commercial development and enable new development to take full advantage of this sustainable energy source. In 2004, the State Legislature revised solar tax credits allowing individuals to take a credit of up to 25 percent (not to exceed $1000) of the cost of solar or wind technology devices installed at their residences.

Energy Research and Development

With substantial undeveloped land and land currently entitled for commercial and industrial development, Marana has opportunities to attract business and generate employment related to energy research and development.

Green Building

The Progress and Innovation Focus Area of the Town of Marana Strategic Plan defines an initiative to "Encourage excellence and innovation within the community and the same from projects being proposed by developers and those looking to invest in Marana." This initiative delineates an action strategy of developing a comprehensive green building program for both private and public construction that includes updating existing development policies and regulations to accommodate new innovations in sustainable construction.

Green building generally refers to construction processes that that are considered to be occupant and environmental friendly and utilize environmentally responsible and resource-efficient principles in the siting, design, construction, and operation of buildings to minimize negative impacts upon the environment and natural resources. Green building design typically involves meeting the goals and objectives of energy efficiency, healthy indoor air quality, waste reduction, water efficiency, recycling and use of recycled materials, durability and flexibility of building design, and habitat preservation. Green building contributes to the increase in quality of interior and exterior building environments by creating a livable space that reduces the unintended consequences of conventional construction practices. As the green building industry continues to evolve and products and technologies become more advanced, innovative designs will further increase their effectiveness. Green building certification programs exist including Leadership in Energy and Environmental Design (LEED) developed by the United States Green Building Council.

Urban Heat Island Effect (UHI)

The Urban Heat Island Effect (UHI) results from higher temperatures within metropolitan areas due to the retention and emittance of solar insolation from built surfaces. Pavement and buildings store heat that increases surface temperatures during the day and increases ambient temperatures at night as the stored heat is released. Higher temperatures in urban centers typically result in an increase in cooling costs. Higher temperatures also accelerate chemical reactions which produce elevated ground levels of pollutants (ozone and smog). This air pollution creates a threat to public health and the comfort of residents within the community. A community must recognize the importance of cool and impervious pavement surfaces, as well as white or "green" rooftop design in construction activities in order to reduce UHI. The effective use of landscaping, sometimes referred to as urban forestry, can also be used to mitigate the UHI.

8.4.7. Issue Identification and Trends

Federal Government Mandates Coming Down the Road

The federal government is moving toward establishing a national program to reduce Greenhouse Gas (GHG) emissions within the United States. As the federal government works to define the nature and scope of its approach, it will be crucial for Arizona to continue its efforts to not only slow the growth of emissions within the state, but also to position itself to share in the lessons learned at the federal level. Although Governor Napolitano has left office to join President Obama's Cabinet, it is important that Arizona continues to make substantial progress toward these objectives under the state's new leadership.

Energy-Water Nexus

Water and energy are inexorably linked—energy is needed to pump, treat, and transport water and large quantities of water are needed to support the development of energy.

Ensuring sufficient supplies of energy and water will be essential to meeting the demands of the 21st century. This task will be particularly difficult, given the interdependency between energy production, water supply, water quality and the strains that all of these resources currently face. The Department of Energy, together with other federal agencies, has a key role to play in providing key information, helping to identify ways to improve the productivity of both energy and water, partnering with industry to develop technologies that can lower costs, and analyzing what progress has been made along the way.

While the DOE currently has a number of ongoing research efforts to develop information and technologies that will address various aspects of the energy-water nexus, there are a number of areas to focus future research and development efforts. Investments in these areas will provide information to help ensure that we are balancing energy independence and security with effective management of our freshwater resources.

Changing Development Patterns

<u>Land Use – Transportation Link</u>

The transportation sector cannot do its fair share to meet the U.S. Greenhouse gas emissions target through vehicle and fuel technology alone. For climate stabilization, a commonly accepted target for the year 2050 would require the United States to cut its carbon dioxide (CO2) emissions by 60 to 80 percent below 1990 levels. Carbon dioxide levels have been increasing rapidly since 1990, and so they would have to level off and decline even more rapidly to reach this target level by 2050. A recent ULI publication demonstrates that we have to find a way to sharply reduce the growth in vehicle miles driven across the nation's sprawling urban areas, reversing trends that go back decades.

The authors calculate that shifting 60 percent of new growth to compact patterns would save 79 million metric tons of CO2 annually by 2030. The savings over that period equate to a 28 percent increase in federal vehicle efficiency standards, generating one-half of the cumulative savings of the new 35 mpg Corporate Average Fuel Economy (CAFÉ) standards. Every resident of a compact neighborhood would provide the environmental benefit expected from, say, driving one of today's efficient hybrid cars.

This effect would be compounded, of course, if the resident also drove such an efficient car whenever he or she chose to make a vehicle trip. Smart growth would become an important "third leg" in the transportation sector's fight against global warming, along with more efficient vehicles and lower-carbon fuels.

Compact Development & Complete Streets

The term "compact development" does not imply high-rise or even uniformly high density, but rather higher average "blended" densities. Compact development also features a mix of land uses, development of strong population and employment centers, interconnection of streets, and the design of structures and spaces at a human scale.

Better community planning and more compact development help people live within walking or bicycling distance of some of the destinations they need to get to every day—work, shops, schools, and parks, as well as transit stops. Promoting bicycling and pedestrian usage helps the community reduce vehicle emissions and reliance on fossil fuels by reducing the number of vehicles on the road. If they choose to use a car, trips are shorter. Rather than building single-use subdivisions or office parks, communities can plan mixed-use developments that put housing within bicycling or walking distance of these other destinations. The street network can be designed to interconnect, rather than end in cul-de-sacs and funnel traffic onto overused arterial roads. Individual streets can be designed to be "complete," with safe and convenient places to walk, bicycle, park and wait for the bus.

Finally, by building more homes as condominiums, townhouses, or detached houses on smaller lots, and by building offices, stores and other destinations "up" rather than "out," communities can shorten distances between destinations. This makes neighborhood stores more economically viable, allows more frequent and convenient transit service, and helps shorten car trips.

An Incorrect Assumption

The perception that Energy conserving building practices are thought to be prohibitively expensive. Education and dissemination of public information is necessary to demonstrate the overall practicality of green building.

Alternative and renewable energy sources include solar, wind, biomass and biofuels. Residential, commercial, industrial, and transportation-related developments present practical options for the town. Existing residences have potential for design retrofitting to accommodate solar-generated power.

8.4.8. Strategic Direction

Local land use patterns, transportation options, and individual consumer consumption decisions impact energy use within the Town. Development and construction of buildings to reduce per-capita energy demand is increasingly important for future growth. Searching for ways to reduce energy demand will not only reduce our reliance upon non-renewable energy resources but will also make the town more ecologically and economically viable.

Placing an emphasis upon the development and use of sustainable and renewable energy sources such as solar, wind, and biomass, is crucial in addressing the global goals of reducing or minimizing the environmental degradation that typically results from the current methods of power generation. Marana's efforts to establish alternative energy sources are to:

- Encourage efficient energy consumption.
- Adopt voluntary, incentive-based programs.
- Create or support Effective energy conservation measures.
- Assess impact of our community's increased costs of conventional energy.
- Establish green application local standards.

<u>Energy Efficiency and Conservation Strategy</u>
Energy conservation can be promoted and supported through the implementation of programs, provision of incentives, and improvement of existing development standards. This strategy will serve as a resource for the Town to establish policy direction.

Marana will start by compiling information on municipal energy use, track use trends across the agency, identify saving opportunities, establish criteria for setting priorities for the allocation of future funding. The Strategy will also describe public outreach and public education opportunities to meet one of the Community Building goals outlines in Marana's Strategic Plan.

The Town will assemble a multi-disciplinary team for the development of the Energy Efficiency and Conservation Strategy. This team will use existing data, energy audits, and public input to develop a Strategy addressing energy savings across the agency. Marana will select pilot projects based on level energy savings, implementation period, cost, cost recovery, and the appropriateness of program delivery in concert with public educational opportunities.

8.4.9. Goals, Policies and Actions

Responsible use and development of energy support Marana's goal to create a community that embraces change, and innovation, while still promoting economic growth and development. Sustainable energy reduces consumption of non-renewable energy sources. Supporting development and utilization of alternative or renewable energy sources provides a sustainable Quality of Life for Marana.

By making sustainable choices for our current energy usage, planning for transition to more reliable and affordable sources of energy, livability and Quality of Life within the community will continue in the long haul.

Goal 1: Promote and practice energy conservation.

a. Policy**:** Integrate energy efficiency and conservation measures into land use planning.

b. Policy: Plan for the development of land use patterns which reduce the need to travel and encourage the use of more energy efficient modes of travel.

1. Action: Provide incentives to developers who propose mixed use developments.
2. Action: Promote land uses that utilize pedestrian and bicycle transportation opportunities.
3. Action: Encourage and promote innovative land use and site planning techniques such as mixed-use developments, multi-use facilities, clustering, and building orientation.

c. Policy: Promote energy conservation through public education.

1. Action: Provide educational programs and opportunities to residents and local businesses about energy conservation, and provide assistance for conversion to more clean energy sources.
2. Action: Establish a program for recognizing businesses and homeowners that are leaders in adopting and implementing energy conservation and efficiency measures.
3. Action: Provide energy efficiency information to our citizens through a website or other outreach efforts.
4. Action: Partner with Tucson Electric Power and/or TRICO and other organizations in promoting existing programs and developing educational resources that emphasize energy efficient choices available.
5. Action: Inclusion of energy audits in the Towns building occupancy inspection process. The audit findings can be provided to the occupants, and recommended improvements can be voluntary or required.

d. Policy: Create financial mechanisms and incentives that promote investment in the programs necessary to enable the Town to achieve reductions in energy demand, improvements in energy efficiency, and the transition to renewable energy sources.

1. Action: Assemble a multi-disciplinary team to work on energy efficiency policies and practices.
2. Action: Monitor available State and Federal energy grants and projects and actively pursue those which will benefit the Town.
3. Action: Investigate opportunities to assist businesses and homeowners to help them afford the purchase of renewable energy technologies.
4. Action: Consider implementing a solar co-op program and explore related financial considerations.
5. Action: Develop a plan to address the specific energy needs of low income people including recommendations for improvements to existing energy-related programs and identification of potential projects to address energy needs.

Goal 2: Attain a sustainable energy future by reducing consumption of non-renewable energy sources and promote and support the development and utilization of alternative or renewable energy sources.

a. Policy: Reduce transportation-related energy consumption.

1. Action: Provide incentives to the private sector to establish and operate alternative transportation systems.
2. Action: Explore opportunities and new technologies for economical, clean, fuel efficient and alternative fuel vehicles.
3. Action: Encourage businesses, institutions, and the public to invest in clean and fuel efficient vehicles
4. Action: Develop and Implement the Energy Efficiency and Conservation Strategy.
5. Action: Develop and implement town-wide strategic energy planning programs.
6. Action: Develop and implement an Energy Conservation Policy plan.
7. Action: Require Specific Plans to provide for bicycle and pedestrian circulation systems to transit and employment centers.
8. Action: Amend Title 17 (Environmental Resource Preservation, Native Plant Protection, and Landscape Requirements) of the Land Development Code to require increased use of trees and set aside of natural open space to reduce the 'Urban Heat Island Effect', thereby reducing energy costs and creating a more livable environment.

b. Policy: Encourage the development of clean energy technologies.

1. Action: Identify barriers to the development of renewable energy within the Town and formulate a means for overcoming them.
2. Action: Explore economic development opportunities to help establish Marana as a center for innovation and development of renewable energy technologies.
3. Action: Promote green business development and create green job training opportunities.

Goal 3: Establish Marana as a leader in green and sustainable development and construction, and encourage the use of sustainable development principles and green building techniques in public and private development projects.

a. Policy: Encourage and promote mitigation of the Urban Heat Island effect through the use of cool and permeable pavement material, white and 'green' rooftops, and effective use of landscaping.

b. Policy: Encourage and promote a balance between the natural and built environments by reducing the built environments footprint and increasing the use of natural undisturbed areas.

1. Action: Work with developers, Southern Arizona Home Builders Association and residential and commercial builders to develop a list of current practices in energy efficiency for residential, retail, commercial and other building types.
2. Action: Adopt the Leadership in Energy and Environmental Design Neighborhood Design (LEED-ND) program, which emphasizes sustainable neighborhood design practices.
3. Action: Adopt a green building ordinance that requires new construction, renovations, and redevelopment projects to incorporate green building practices and energy conservation measures into the design.
4. Action: Provide incentives for discretionary development that incorporates energy conservation measures and the use of renewable energy sources.
5. Action: Construct, renovate, and maintain Town of Marana facilities and buildings to optimize energy efficiency, utilize renewable energy where feasible, and enhance environmental sustainability.
6. Action: Provide public recognition for exemplary green building development and construction projects. This may include an award presentation at Town Council meetings.
7. Action: Develop an educational program for the community and business interests on energy efficient construction currently practiced in the community and trends in the future.

Goal 4: Reduce energy use in municipal buildings in an effort to reduce energy-related expenses and position the Town for a sustainable energy future. Lead by example in retro-fitting existing municipal buildings.

a. Policy: Reduce the energy foot print of Town buildings and other energy using installations; e.g., well pumps, more efficient machinery.

b. Policy: Position the Town for a changing energy future of energy availability and affordability.

c. Policy: The Town will lead by example in local and regional energy reduction.

1. Action: Conduct an energy audit on Town buildings and other energy-using installations identifying how energy is being used by function and user.
2. Action: Develop a plan with measurable goals to reduce energy consumption in Town buildings and energy-using installations over the next one (1), five (5) and ten (10) year horizons.
3. Action: Develop a public relations plan to excite residents, business owners, developers and home builders on the energy reduction actions and success of the Town.

Further Reading

"Energy Planning." *Pima Association of Governments Home Page, Tucson, Arizona*. Web. 16 July 2010. <http://www.pagnet.org/Programs/EnergyPlanning/tabid/907/Default.aspx>.

"Growing Cooler." *Smart Growth America*. Web. 16 July 2010. <http://www.smartgrowthamerica.org/gcindex.html>.

Kinder Morgan. Web. 16 July 2010. <http://www.kne.com/business/products_pipelines/pacific_operations.cfm>.

"Planning & Zoning Handbook; Chapter 9: Subdivison Regulations & Site Planning Review." *Arizona Department of Commerce Home Page*. Web. 16 July 2010. <http://www.azcommerce.com/doclib/smartgrowth/hanbook/p&zchapter9.pdf>.

"U.S. GAO - Energy and Water: Preliminary Observations on the Links between Water and Biofuels and Electricity Production." *U.S. Government Accountability Office (U.S. GAO)*. Web. 16 July 2010. <http://www.gao.gov/products/GAO-09-862T>.

SECTION 9

Introduction to the Natural Systems Theme

The Natural Systems Theme refers to the natural resources within the environment that tie us to the earth, and which we rely upon to exist – land, air, and water. While this short list is not intended to identify all the natural systems within a community, it identifies those that are fundamentally related to the environment of every community, affecting what services are provided and how those services are structured. Marana recognizes that the continued protection, and conservation of these natural resources is necessary to maintain our Quality of Life and the sustainability of the environment and our community. This Theme establishes policies to achieve acceptable standards of management and practice under the guidance of the Marana Draft Habitat Conservation Plan (HCP). Land, air, and water constitute Marana's environment and is required to be part of Arizona municipal General Plans.

Theme	Content	Elements
	Protecting natural processes and the biological systems within them.	Land, Air, and Water (Environmental)

9.1.1. Introduction

The Natural Systems Theme focuses on natural resources including the land, air, water, and biological resources of the community. Virtually any growth or development will have some effect on natural systems. The policies and programs outlined in this section will help balance growth while protecting and sustaining the natural systems.

With its Growing Smarter Legislation, Arizona challenged every community to balance new growth with conservation of these resources. The Town of Marana is positioned to meet the challenges of building a sustainable community and preserving its natural environment by directing new growth to appropriate areas. The Town's vision recognizes that conservation of natural open space and environmental features should be closely aligned with development and community sustainability. Natural resources include important habitat areas rich in native vegetation and wildlife diversity as well as land subject to naturally occurring constraints such as flooding, soil erosion, and steep slopes.

9.1.2. Background

The natural features of the Town include a variety of systems, which are shown on the Natural Resources Map on page 9.1.A. The Tortolita Fan is located east of Interstate 10. The fan holds wash systems such as the Wild Burro and Prospect Wash, but as the flows move down the fan from northeast to southwest the floodplain fans out into sheet flooding with multiple wash systems. A floodplain "means an area that is prone to being inundated by water" (FEMA definition). Marana's natural systems depend on the seasonal waters that are part of the landscape. These wash systems are restricted as they flow toward the Santa Cruz River by the Central Arizona Project, Union Pacific Railroad and Interstate 10 where the water ponds in many locations. The Tortolita Fan is home to many desert plant and animal species. The wash corridors and upland areas provide for great wildlife connectivity opportunities. The Natural Systems Map on page 9.1.A depicts the floodway along the Santa Cruz River. A regulatory floodway "means the channel of a river or watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. Portions of the floodway consist of vegetation important to many riparian species. Rivers are dynamic systems, and the riparian vegetation is periodically scoured from the floodway; however, re-growth is rapid where water is present.

In 2002, Marana annexed approximately 21,500 acres of State Trust Land in the Tortolita Fan. The fan is characterized by abundant native vegetation, areas of sheet flooding, and a number of natural washes. The Tortolita Fan supports a high-quality

ironwood (*Olneya tesota*) forest which is important for many wildlife species, including species currently listed as endangered or that may become listed in the future. The Town has proactively moved to direct new growth and development away from the northern area of the Tortolita Fan, generally one mile north of Tangerine Road. This General Plan is establishing no extension of urban services into this sensitive area (see Land Use Element).

9.1.3. Desired Outcomes

The Town of Marana desires to preserve natural systems to the extent practicable. The floodplains are regulated by the Floodplain Management and Erosion Hazard Ordinance (2006.24).

Ensuring that the water that flows as runoff from storm events is free of pollution is a priority for the Town of Marana. There are many direct wash and channel conveyances to the Santa Cruz River. Many of these conveyance systems run through developed areas where the water has the potential to become contaminated with pollutants, so it is important that pollution be kept out of the storm-water and out of the river. The protection of this surface water will benefit the future of the community by providing healthier natural systems for plant and animal species.

The Marana Draft Habitat Conservation Plan (HCP) will help reduce flooding, by preserving the washes on the Tortolita Fan, which recharge groundwater and absorb, filter and purify rainwater. The HCP will also work to preserve natural open space which aids in minimizing the heat island effect associated with development and in maintaining air quality standards.

Marana's wealth of wildlife is another component of our natural systems that will benefit by the preservation of open space and natural systems for threatened and endangered species habitat and wildlife movement linkages. The Draft Marana HCP also identifies a one kilometer-wide corridor that runs in a north-south direction and will connect the Tortolita Mountains with the Santa Cruz River and Tucson Mountains. The approximate location of the proposed wildlife corridor is shown on the Natural Resources Map on page 9.1.A. The Draft HCP sets goals for the preservation of the wildlife corridor and the riparian areas which will help protect the Santa Cruz River. The river is important as a wildlife corridor and as habitat for riparian species, especially birds.

9.1.4. Existing Conditions

The Santa Cruz River is a significant feature that runs in a northwesterly path through the Town. The river runs from Mexico and eventually joins the Gila and the Colorado Rivers. The stretch within the Town limits is about seventeen (17) miles in length. The Rillito River and Cañada del Oro Wash are major tributaries that contribute to water flow in the Santa Cruz. The width of the Santa Cruz River is constricted in places by bank protection and flood control measures. In some portions of its upper reaches

there is a natural floodplain and the river is several hundred feet in width. Discharges of sewage effluent into the Santa Cruz River currently provide year round stream flow through Marana.

A regional watercourse, the Santa Cruz River, has had an important impact on Town development. Significant prehistoric and historic sites are present along the banks of the River providing for a rich and long history. With the discharge of effluent from the wastewater treatment facilities (Ina Road Plant), the Santa Cruz River provides riparian habitat for many plant and animal species. The southwestern willow flycatcher is another species in the Draft HCP that is known to use the river.

Currently, there are a number of sand and gravel operations and borrow pits in and near the river channel. There are also river trails that run along the top of the existing bank protection and levees. There are different segments along the Santa Cruz River that contain multi-use paths for recreational uses.

The Town of Marana adopted the Santa Cruz River Corridor Plan in 2001 with the vision of making the river corridor a major asset to the community. The plan provides several recommendations in categories of Economic and Infrastructure Policy, Environmental and Recreational Policy, and Process and Organizational Recommendations. These plan recommendations provide guidance to the Town on ways to balance economic growth with the natural environment to enhance the river corridor and the community. The Santa Cruz River is included as a Draft HCP conservation zone and provides potential habitat for several threatened and endangered species and acts as an important route for migratory birds.

Marana lies within the Sonoran Desert, and includes substantial acreage of natural resources and open space areas. These natural areas have characteristics including native vegetation, natural drainage patterns, wildlife habitat, and steep slopes. These areas support many plant and animal species as well as provide opportunities for passive recreation and scenic views.

The Town's natural systems currently provide habitat for various wildlife species. Some of the species within the Town are threatened, endangered, or are a species of concern. Resources do not just provide for nesting habitat, but for some species, the resources within the Town provide foraging habitat. One example is the lesser long-nosed bat that has important foraging habitat on the Tortolita Fan. Incorporation of the Draft HCP measures into Town ordinances and guidance documents will help ensure that the habitat for these species is maintained as development is planned.

Land resources southwesterly of Interstate 10 are historically ranch and farmlands. Some of the agricultural land is expected to be developed over the next 20 year

planning period, although some farmland may remain, mostly in the floodplain. Agricultural lands and washes provide habitat for raptors and snake species. Marana's agricultural lands are part of a network across North America that contributes to habitat for migrating birds and raptors. The Draft HCP provides conservation measures to mitigate the impacts of development on these species.

Protection of water resources is an important priority for the Town of Marana. Continued growth places more demand on this limited resource. Several completed and ongoing studies provide specific policies and programs to ensure the highest level of water quality.

The Town of Marana, under the Arizona Pollution Discharge Elimination System General Permit for Discharge from Small Municipal Separate Storm Sewer Systems to Waters of the United States, has developed a Storm-water Management Program. This program was developed to educate the public on, implement best management practices for, and enforce compliance with stormwater pollution prevention. Part of this plan included a directive for the adoption of an ordinance to minimize storm-water pollution. A Town of Marana Storm-water Ordinance was originally adopted in 2007 as Title 25 of the Land Development Code and then updated again in 2008 to meet the most current federal and state regulations. This ordinance established storm-water management requirements for the minimization of pollutants that may be discharged to the municipal storm sewer system. Marana is committed to improving the quality of storm-water discharges and to complying with all applicable state and federal laws. Town Capital Improvement Projects as well as private development projects are subject to all local, state, and federal regulations.

Air Quality

Air quality is a regional issue. Residents and visitors to the region expect clean air, blue skies, and clear mountain views in the Sonoran Desert. All five of the municipalities in the region— Marana, Tucson, South Tucson, Oro Valley, and Sahuarita, along with Pima County and local Indian Tribes—are engaged in efforts to address impacts on air quality caused by increasing regional urbanization. The primary concerns for air quality involve health, tourism and economic development.

The Pima County Department of Environmental Quality and Pima Association of Governments monitor air quality by closely monitoring three (3) types of air pollutants: carbon monoxide, ozone, and particulate matter. These pollutants come from a variety of sources, including vehicle emissions, dust, and industrial activity.

Because of potential threats to public health, all levels of government are heavily involved in air quality planning. The Federal Environmental Protection Agency (EPA) administers the Clean Air Act. That program requires that urban growth be mitigated to achieve and maintain basic air quality standards. The State of Arizona is involved with vehicle emission control as well as seasonal use of oxygenated fuels.

At the regional level, the Pima Association of Governments (PAG) and the Regional Transportation Authority (RTA) are responsible for coordinating transportation improvements and programs to promote improved air quality and reduce vehicle miles traveled. Air quality programs include Travel Reduction and Rideshare plans, the freeway management system, inter-jurisdictional traffic signalization, and intelligent transportation systems. PAG and the RTA update the regional five-year Transportation Improvement Program (TIP) annually to coordinate funded projects for all member jurisdictions. The TIP includes all highways, transit systems, aviation, ridesharing, pedestrian programs, and bicycle planning.

PAG's 20-year, Long Range Transportation Plan (2010) for the region is also updated regularly to assure that local projects are integrated into the entire Tucson Basin region. PAG studies conclude that the greater Tucson metropolitan region does not have critical air quality issues; it continues to monitor levels of carbon monoxide, ozone, and particulate matter to maintain high public standards of air quality.

At the local level, the Town of Marana adopted ordinances in 2002 to protect air quality and reduce air pollution. One ordinance (2002.06) requires that all hauling vehicles be covered with tarps during transport. Another ordinance (2002.30) is directed primarily toward surface sand and gravel operations and requires installation of tire washers or other means to reduce the tracking of materials from the sand and gravel operations.

9.1.5. Current, Proposed, or Newly Completed Projects

Marana has several studies that address the environmental conditions of the Town, including a series of floodplain and drainage plans. These include the Water Master Plan, the Parks, Recreation, Trails, and Open Space Master Plan, the Stormwater Management Plan, and the Santa Cruz River Corridor Plan. In addition, the Town has a Native Plant Preservation Ordinance (2001.17), Landscaping Regulations, Stormwater Ordinance (2008.10), and Hillside Development Regulations as part of its Land Development Code. Finally, the Town is developing a draft Habitat Conservation Plan (HCP) along with participating in the Tres Rios del Norte ecosystem restoration process.

Arizona had an estimated 60% increase in greenhouse gas emissions from 1990 to 2006. In 2006, Executive Order 2006-13 established a statewide goal to reduce Arizona's future greenhouse gas emissions to the 2000 emission level by the year 2020, and to halve that by 2040. Marana

has proactively started modeling the current greenhouse gas emissions from vehicles, industrial emissions, commercial emissions, and waste handling in order to provide a baseline for future use in the event that restrictions are implemented by the State. The Town of Marana worked with the Pima Association of Governments to get an inventory of greenhouse gas emissions within the Town. The 2010 inventory covers emissions from both from the private sector for 2007 and 2008, and from Town activities from 2008.

Goals and policies in other sections of the Marana General Plan positively affect air quality. The Transportation Element promotes alternative modes of transportation and park-and-ride lots at all of Marana's Interstate 10 interchanges. Marana continues to build a paved system of bicycle/pedestrian trails along major roads to connect with the region's River Corridor system. Other proposals that positively, but indirectly, affect air quality are found in the Land Use and Transportation Elements.

Natural Resources

The Town is currently engaged in a habitat conservation planning process. This process will result in a Habitat Conservation Plan (HCP) to be submitted to the U.S. Fish and Wildlife Service (USFWS) in conjunction with an application for a Section 10 Incidental Take permit from the USFWS. This permit allows incidental "take" or removal of habitat of endangered species during the construction of Capital Improvement Projects, Town maintenance, and possibly some private development. The Draft HCP, in turn, outlines conservation strategies for the covered species along with an implementation plan for these strategies.

The Town has also taken part in the Tres Rios del Norte Feasibility Study (TRDN) and planning process since 2001. The TRDN study is a collaborative effort among the U.S. Army Corps of Engineers, Pima County Regional Flood Control District, Tucson Water, and the Town of Marana. The goal of TRDN is to conduct ecosystem restoration along 18 miles of the Santa Cruz River. The initial Feasibility Study was authorized in 1999 and a draft will be available for public review in 2010. Since the majority of the project area occurs within Town limits, TRDN presents an excellent opportunity for large scale ecosystem restoration in Marana. This will add to the Quality of Life for Marana residents and provide valuable long term habitat for local wildlife.

Wildlife linkages are another important concern. With the adoption of the Regional Transportation Authority (RTA) plan by local voters in 2006, $45 million was allocated for establishing and protecting critical wildlife linkages in Pima County. The Town is working with the RTA to decide how this RTA money will be used on numerous projects within Town limits. The Town recently incorporated a mule deer crossing in

the newly constructed portion of Camino de Mañana (Twin Peaks extension). In addition to working with the RTA, the Town had the Arizona Game and Fish Department conduct wildlife linkages studies on roads where wildlife connectivity is a concern. These studies will help the Town include wildlife friendly crossings, such as culverts, in the design of new roads. As roads are widened or new roads are constructed, they will be evaluated for inclusion under Environmentally Sensitive Roadway Design Guidelines to ensure they are as wildlife-friendly as possible. Environmentally Sensitive Roadways are designed to maintain habitat connectivity through the preservation of natural vegetation density, wildlife crossing structures, the preservation of washes, and other measures.

Finally, to provide for linear continuity, Marana is working to secure land to make appropriate trails and linkages along the Santa Cruz River. These include hiking and equestrian trails, permanently protected open space, greenbelts, archaeological resources, community gardens, and wildlife habitat. This linear connection will be designed in conjunction with utility corridor development.

9.1.6. Opportunities and Challenges

Interstate 10 and the railroad run parallel through the Town. Interstate 10 and the UPRR are major barriers between the Tucson Mountains and the Santa Cruz River and Tortolita Mountains for wildlife. They are also barriers for the wash systems that are to the northeast to get to the Santa Cruz River. There is an opportunity for wildlife connectivity near the Avra Valley Interchange with Interstate 10. The Town is working with other organizations and government entities to identify potential wildlife linkage structures at Avra Valley Road and I-10 to connect the Tortolita and Tucson Mountains. The Town has designated this area as a Special Planning Area within the General Plan (see land use section).

Areas where slopes exist in excess of 15 percent typically pose difficulties for development. These are opportunities for preservation of the landscape for plant and animal species on the Tortolita and Tucson Mountains through Hillside Development Regulations in Title 19 of the Marana Land Development Code.

Several invasive non-native species are present within the Town of Marana, and these species can be expected to increase in number and distribution over time. Invasive species can be plants or animals that negatively impact the native flora and fauna by increasing competition and stress on native species, changing fire patterns, and spreading disease.

One species of particular regional concern is buffelgrass (*Pennisetum ciliare*), which spreads rapidly and poses extreme fire danger for residential areas and businesses as

well as for native plants and animals. The Town of Marana has developed an Invasive Species Management Program as part of the draft Habitat Conservation Plan. The Town's Program will be guided by the four key program concept areas:

1. *Adaptive Management, Maintenance, and Monitoring*
2. *Regulatory Authority*
3. *Cooperation and Coordination*
4. *Public Education and Outreach*

The Town is also a member of the buffelgrass Working Group and has signed on to the Memorandum of Understanding, to coordinate efforts with other jurisdictions, government agencies, and private groups.

A portion of Marana is located within the Rillito PM10 area, a classification given to the area because the air contains large quantities of particulate matter of 10 microns or less. The pollution is caused primarily by nearby agricultural fields, emissions from the cement plant, and fugitive dust from vehicular traffic. This management area supports intensive land uses and is federally designated as a non-attainment area. As agricultural fields and other vacant, degraded areas are developed and roads are paved, airborne dust and other particulate materials will be reduced. More information about regional air quality can be found at the Pima Association of Governments and Pima County Department of Environmental Quality.

While there are known areas of groundwater contamination that are being monitored, the Santa Cruz River Corridor Plan notes that some pollution sources originate upstream from the Town limits. An area that has elevated groundwater nitrates is also being monitored.

The Town of Marana relies on its citizens for help in keeping stormwater runoff clean, and education is the number one tool used to achieve that goal. By working closely with the Marana Unified School District, the Town has the opportunity to reach its youngest citizens and start the education process early. Outreach efforts between the Town and school children have been very effective. Town of Marana has worked hard to develop partnerships with government entities such as the Pima Association of Governments so that jurisdictions can combine resources and work together to spread awareness to a broader audience. Each year PAG and its members conduct a seminar geared toward providing stormwater pollution protection to members of the construction industry. This provides the Town with the opportunity to speak directly to those whose work has a large impact on the quality of our stormwater runoff. The Town of Marana in cooperation with PAG also conducts an outreach campaign during monsoon season to the larger community on the benefits of keeping stormwater free of pollutants.

9.1.7. Issue Identification and Trends

Since 2000 several significant planning studies have been completed to identify areas for future development that are not substantially affected by environmental issues. The Town continues to focus development in the northwest central corridor and northwest area, and in certain areas west of Interstate 10 where the predominance of farm fields makes those lands more appropriate for development.

A substantial amount of land area to the north and east of Interstate 10 has constraints to development due to natural conditions, including flooding, erosion, native vegetation and wildlife habitat. Development in this area will be less intense and must be more responsive to those natural conditions. This land may be considered for open space, scenic resource, water recharge, and conservation purposes. This will help to achieve the balance of growth and resource protection called for in the Arizona Growing Smarter Legislation. In support of that direction, the Draft HCP is being coordinated with other regional plans to facilitate a coordinated effort. The Marana Draft HCP is specifically tailored to Marana's unique habitat areas and will provide conservation measures to assist in achieving the goals for natural system conservation.

Issues and trends that involve storm-water usually come from changes in state and federal regulations. The Town of Marana adjusts it's regulations as necessary to maintain compliance with these federally mandated programs. The Town continues to maintain a very effective storm-water program from outreach to municipal compliance.

9.1.8. Strategic Direction

The Draft HCP will provide guidance and direction for the preservation of these natural systems. The Town will continue to finalize the HCP and the supporting documents. This will also drive the inclusion of Draft HCP goals, policies and objectives into the other Town documents such as the Town Code, Land Development Code, and Parks and Recreation Plan.

By keeping an open dialogue with the employees and citizens of Marana, the Town will be able to ensure that the power to reduce stormwater pollution is in the hands of those whom can get the job done. And by continuing to monitor the state and federal regulations as they relate to stormwater runoff, the Town will ensure that it is kept in compliance and doing all that it can to provide a healthier place to live for everyone.

The Town will continue to implement and update the floodplain management code as necessary to make sure that the floodplain systems are maintained and mitigated properly where development is necessary.

9.1.9. Goals, Policies and Actions

Goal 1: Protect and conserve natural resources.

a. Policy: Protect regional air quality.

1. Action: Continue to work with the Pima Association of Governments and Regional Transportation Authority to identify and remediate sources of air pollution in Marana's sphere of influence.
2. Action: Encourage alternative modes of transportation and development of facilities to reduce vehicle miles traveled, including ride-share lots, transit facilities, and shared-use paths.
3. Action: Promote employee programs and incentives to reduce automobile use, including car pooling, flexible hours, and other programs.
4. Action: Review development standards for site grading and erosion control to minimize land disturbance prior to construction.
5. Action: Ensure that native vegetation removed by new development is replaced in compliance with the Native Plant and Landscaping Ordinances in order to eliminate bare and graded areas.
6. Action: Continue to monitor and implement the Native Plant and Landscaping Ordinances to avoid dust pollution. Require a landscape bond for revegetating disturbed areas.
7. Action: Share resources and facilities as appropriate.
8. Action: Continue to monitor Greenhouse Gas (GHG) Emissions.

b. Policy: Protect areas of significant biological resource value.

1. Action: Work to complete and submit a Multi-Species Habitat Conservation Plan (HCP) to the US Fish and Wildlife Service that addresses environmental concerns of the community and the region, and provides for conservation of identified species to be covered in the HCP as it may be adopted.
2. Action: Identify assured funding sources for the HCP.
3. Action: Continue to refine conservation measures to protect areas identified in the Draft HCP.
4. Action: Work to identify and map important biological resources and sensitive natural conditions.
5. Action: Identify and map important wildlife corridors and work to create and protect connections for continuous corridors.

6. Action: Continue to promote wildlife mitigation set aside programs in important habitat areas identified in the Draft HCP where development impacts significant habitat.
7. Action: Work toward identifying mechanisms to purchase or secure conservation easements for significant natural areas, emphasizing wildlife linkages, riparian areas identified in the Draft HCP.
8. Action: Coordinate with the Arizona Game and Fish Department and the U.S. Fish and Wildlife Service regarding conservation strategies for critical species that may be affected by growth in Marana.
9. Action: Incorporate valued biological resources as part of Marana's overall open space planning efforts. Coordinate these reserves with the implementation strategies of the adopted HCP.
10. Action: Develop and Implement environmentally-sensitive roadway design guidelines.
11. Action: Update ordinances to protect sensitive lands by evaluating appropriate land disturbance for all discretionary actions such as General Plan amendments, rezoning, and conditional use permits.
12. Action: Evaluate existing standards and consider limiting land disturbance of the gross land area in areas of valued biological resources to 30% or as determined based on the Site Resource Inventory and general context of existing conditions. In identified Conservation Zones, meet maximum disturbance levels consistent with the Draft HCP for rezonings, specific plans, and annexations. Development on these parcels should also strive to achieve maximum wildlife connectivity with adjoining parcels.
13. Action: Work to draft and update ordinances address environmentally sensitive road design standards.
14. Action: Continue to work with the Regional Transportation Authority Wildlife Linkages subcommittee, encourage and support research studies of new road projects (widening and building) that evaluate wildlife linkages prior to design. Incorporate research recommendations into project design, such as culvert type and placement.
15. Action: Develop an inventory of wildlife species found in Marana's environs, and use this information in publications to promote the Town's visitor attractions.
16. Action: Identify degraded waterways and restore degraded vegetation along drainageways that provide wildlife movement corridors.
17. Action: Update ordinances for native plant protection, permitted plant lists, and control of invasive species groups.

18. Action: Encourage the removal of invasive species by pursuing funding opportunities for invasive species eradication. Promote and support regional initiatives on invasive species eradication. Conduct outreach to coordinate with, and support local invasive species groups.
19. Action: Promote natural alternatives to bank channelization where life safety is not compromised, allowing water courses to recharge groundwater, support wildlife, and provide natural open space.
20. Action: Update Hillside Development Code for development of areas with steep slopes.
21. Action: Identify, preserve and protect significant riparian areas along drainageways.

c. Policy: Require native plant salvage, mitigation, and restoration plans in all new development.

1. Action: Continue to monitor and update effectiveness of the Native Plant and Landscaping Ordinances.
2. Action: Work with development community to promote plant salvage and restoration.
3. Action: Consider program to allow Town residents to salvage drought tolerant plants designated for removal.

Goal 2: Reclaim, restore or redevelop land no longer viable for mining and agriculture.

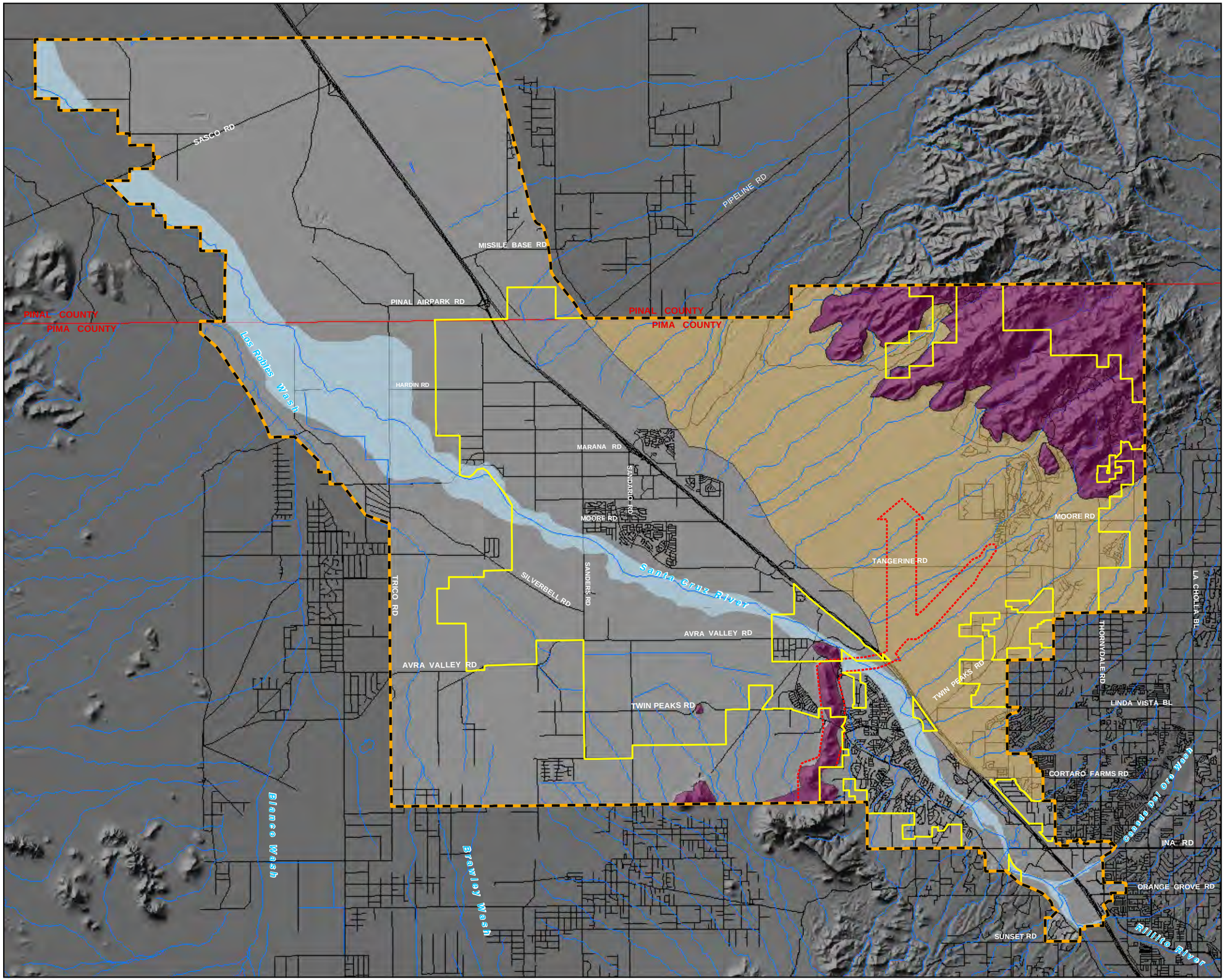
a. Policy: Reclaim land and restore to its natural condition

1. Action: Identify and map areas in the Santa Cruz River Corridor no longer productive for their former use. Develop plans and regulations as needed to reclaim and reuse these parcels, such as the Town's continued involvement in the Tres Rios del Norte Ecosystem Restoration project.
2. Action: Re-establish, restore, and re-vegetate former agricultural land.

b. Policy: Create a connected system of wildlife corridors for movement between the Tortolita Mountains and the Santa Cruz River.

1. Action: Establish major wildlife corridors with buffers to adjacent development.
2. Action: Determine gaps in wildlife corridor areas in the Town of Marana.

3. Action: Restore wildlife corridor connections through retired agricultural lands and reclaimed lands, and by incorporating appropriate wildlife linkage structures (such as culverts) in new roadway projects.
4. Action: Work to minimize the site disturbance within the wildlife corridors so that they may be retained in a naturally undisturbed open space.



MARANA

2010 General Plan

9.1.A

Natural Resources

- Tortolita Fan
- Mod-High Slope
- Planning Area
- Proposed Wildlife Corridor
- Washes
- Santa Cruz River Floodway
- Marana Town Limits
- Pima/Pinal County Boundary

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Data Disclaimer: The Town of Marana provides this map information "As Is" at the request of the user with the understanding that it is not guaranteed to be accurate, correct or complete and conclusions drawn from such information are the responsibility of the user. In no event shall The Town of Marana become liable to users of these data, or any other party, for any loss or direct, indirect, special, incidental, or consequential damages, including but not limited to time, money, or goodwill, arising from the use or modification of the data.

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SECTION 10

Appendices

- Glossary
- Agency/Acronym Descriptions
- Marana Plans Descriptions
- Public Participation Plan
- Public Participation Resolution 2010-10
- Summary Specific Plan Table
- Marana Economic Activity Centers
- Implementation Action Format
- Resolution No. 2011-54

The Need for Definitions

Definitions have a number of functions. First, they establish wit precision the meaning of a word or phrase that might be subject to diverse interpretations or that might be ambiguous or unclear; in other words, definitions promote internal consistency. This is particularly true for planning legislation that contains many terms, such as "affordable housing" and "development," about which there may be several connotations. Second, they simplify the text and eliminate the need to explain the term repeatedly. Third, they translate technical terms into meaningful and usable terminology. Any words and terms not defined in this glossary will have the meaning indicated by common dictionary definition. **

10.1 Glossary

ADOPTION	The final confirmation of a plan as a statutory document by the local planning authority.
AFFORDABLE HOUSING	Housing that has a sales price or rental amount that is within the Means of a household that may occupy middle-, moderate-, or low-income housing. In the case of dwelling units for sale, housing that is affordable Means housing in which mortgage, amortization, taxes, insurance, and condominium or association fees, if any, constitute no more than percent of such gross annual household income for a household of the size which may occupy the unit in question. In the case of dwelling units for rent, housing that is affordable Means housing for which the rent and utilities constitute no more than percent of such gross annual household income for a household of the size which may occupy the unit in question.
AFFORDABLE HOUSING DEVELOPMENT	Any housing that is subsidized by the federal, state, or local government, or any housing in which at least percent of the dwelling units are subject to covenants or restrictions which require that such dwelling units be sold or rented at prices which preserve them as affordable housing for a period of at least years.
AGRICULTURE	The employment of land for the primary purpose of obtaining a profit in money by raising, harvesting, and selling crops, or feeding (including grazing), breeding, managing, selling, or producing livestock, poultry, fur-bearing animals or honeybees, or by dairying and the sale of dairy products, by any other horticultural, floricultural or viticulture use, by animal husbandry, or by any combination thereof. It also includes the current employment of land for the primary purpose of obtaining a profit by stabling or training equines including, but not limited to, providing riding lessons, training clinics and schooling shows.

AGRICULTURAL LAND	Land on which the land use of agriculture occurs.
ALLUVIAL	Soil is formed when a soil-carrying stream gradually loses its carrying capacity with decreasing velocity. In slowing down, a river does not have sufficient power to keep the large particles of soil suspended; these particles settle to the riverbed. Further decrease in velocity causes smaller particles to settle. As the river becomes slow and sluggish (as in the lowlands where its gradient becomes small), it holds only the extremely fine particles in suspension. These particles are deposited, finally, at the mouth of the river.
ANNEXATION	To absorb by legal incorporate: to expand the limits of a municipality. A legal process that the town uses to bring previously unincorporated land into its jurisdiction.
AREAWIDE OR REGIONAL	The geographic territory that encompasses the whole area of influence of a program or impact of a problem to be addressed usually transcends the boundaries of any single unit of local government.
ARTERIAL ROAD	A major through route that distributes traffic to/from collector roads and that often connects major population areas.
AXIOM/TENET	A principle, belief, or doctrine generally held to be true.
BEST MANAGEMENT PRACTICES (BMPs)	The conservation measures and management practices intended to lessen or avoid a development's impact on surrounding land and water.
BIODIVERSITY	The variety of organisms considered at all levels; includes the variety of ecosystems, which comprise both the communities of organisms within particular habitats and the physical conditions under which they live.
BUFFELGRASS (Pennisetum ciliare)	A fire-prone grass introduced from the African savanna to Southern Arizona and other parts of the Western United States.
BUILDING CODE	A building code is the minimum acceptable standard used to regulate the design, construction, and maintenance of buildings for the purpose of protecting the health, safety and general welfare of the building's users.
BUILDABLE LAND	Land within urban and urbanizable areas that are suitable, available, and necessary for residential, commercial, and industrial uses, and includes both vacant land and developed land that, in the opinion of the local planning agency, is likely to be redeveloped.
BUILD-OUT	Refers to a state of build-out, wherein a particular area has reached maximum capacity for population or physical construction of new facilities.

CAÑADA DE ORO WASH	The Cañada del Oro Wash is located at the southeastern edge of the Town, east of I-10. This wash has been impacted by development and is a regional trail connection. The confluence of the Cañada del Oro Was with the Santa Cruz River is west if I-10 and the Union Pacific Railroad.
CANAMEX	An established trade corridor that runs from Canada to Mexico. The Canamex corridor was established by the National Highway System Designation Act of 1995.
CAPITAL IMPROVEMENT	Any building or infrastructure project that will be owned by a governmental unit and purchased or built with direct appropriations from the governmental unit, or with bonds backed by its full faith and credit, or, in whole or in part, with federal or other public funds, or in any combination thereof. A project may include construction, installation, project management or supervision, project planning, engineering, or design, and the purchase of land or interests in land.
CAPITAL IMPROVEMENT PROGRAM (CIP)	A proposed schedule of all future projects listed in order of construction priority together with cost estimates and anticipated mans of financing each project. Included are all major projects requiring the expenditure of public funds over and above the annual local government's operating expenses, for the purchase, construction, or replacement of the physical assets for the community. The scheduling of budgetary expenditures for infrastructure to guide and pace development.
CERTIFIED LOCAL GOVERNEMENT	The Certified Local Government Program was established to enhance local government preservation efforts by increasing public interest and involvement in preservation activities. To become certified, a government must, at least have a local historic district commission with design review control over established or planned locally designated historic districts.
CHANNELIZED (CHANNELIZATION)	The straightening and/or deepening of a watercourse for purposes of storm-runoff control or ease of navigation. Channelization often includes lining of banks with a retaining material such as concrete.
CIVIC ENGAGEMENT /CIVIC LIFE	Civic engagement means working to make a difference in the civic life of our communities and developing the combination of knowledge, skills, values and motivation to make that difference. It means promoting the quality of life in a community, through both political and non-political processes.
CODE ENFORCEMENT	The attempt by a government unit to cause property owners to bring their properties up to standards required by zoning codes, building codes, housing codes, and other ordinances. Code enforcement can be a prime instrument in preventing urban deterioration.
COLLECTOR ROAD	A roadway that distributes traffic between local streets and the arterial network.
COLONIAS	Colonias are rural communities located within 150 miles of the US-Mexican Border. They often lack the basic necessities most Americans

take for granted - running water, electricity, and paved roads. These mostly unincorporated communities began to be developed in the 1950s and continue to exist for a variety of reasons, such as poor land use regulations.

COMMUNITY CENTERS — Multi-purpose meeting and recreational facilities typically consisting of one or more meeting or multi-purpose rooms, kitchen and/or outdoor barbecue facilities, that are available for use by various groups for such activities as meetings, parties, receptions, dances, etc.

COMMUNITY FACILITIES — Public or privately owned facilities used by the public, i.e. streets, schools, libraries, parks; also facilities owned by nonprofit private agencies, i.e. churches, safe houses, and neighborhood associations.

COMPLETE STREETS — Complete streets are designed and operated to enable safe and comfortable access for all users, particularly non-motorized modes. Pedestrians, bicyclists, motorists and transit riders of all ages and abilities must be able to safely move along and across a complete street.

COMPREHENSIVE PLAN, LOCAL — The adopted official statement of a legislative body of a local government that sets forth (in words, maps, illustrations, and/or tables) goals, policies, and guidelines intended to direct the present and future physical, social, and economic development that occurs within its planning jurisdiction and that includes a unified physical design for the public and private development of land and water.

CONSERVATION — The use of methods and procedures necessary to bring any endangered or threatened species to the point at which the measures provided under the Endangered Species Act are no longer necessary; includes research, census, law enforcement, habitat acquisition, and maintenance, propagation, live trapping, and transportation and in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

CONTEXT-SENSITIVE HIGHWAY DESIGN — The application to roadways of design criteria that take into account, in addition to road safety, durability, and economy of maintenance:

(a) the built and natural environment surrounding the roadway, including environmental, scenic, and historic attributes of the area; and

(b) interaction with other modes of transportation, including but not limited to walking, bicycling, and public transportation.

CORRIDORS OF THE FUTURE — On September 10, 2007, the U.S. Department of Transportation announced six interstate routes that will be the first to participate in a new federal initiative to develop multi-state corridors to help reduce congestion. Interstate 10 has been designated as one of the five "Corridors of the Future" (COF) by the Federal Highway Administration (FHWA). (http://www.corridors.dot.gov/i10.htm)

COUNCIL-MANAGER FORM OF GOVERNMENT	Under the council–manager form of government for municipalities, the elected governing body (commonly called a town or city council, town or city commission, or board of selectmen) is responsible for the legislative function of the municipality such as establishing policy, passing local ordinances, voting appropriations, and developing an overall vision. The legislative body, which is voted into office by public elections, appoints a professional manager to oversee the administrative operations, implement its policies, and advise it. The position of "mayor" present in this type of legislative body is a largely ceremonial title, and may be selected by the council from among its members or elected as an at-large council member with no executive functions.
CULTURAL RESOURCES	Includes historic, archaeological and paleontological resources, as well as human remains. Archaeological and historic resources eligible for or listed on the National Register of Historic Places. Cultural resources include buildings, sites, districts, structures, or objects having historical, architectural, archaeological, cultural or scientific importance.
DENSITY	In the case of residential development, a measurement of the number of dwellings per acre.
DENSITY TRANSFER (in reference to transfer of development rights)	A zoning tool enabling the transfer development potential from areas the community seeks to conserve to areas it seeks to be developed
DESIGN GUIDELINE	An activity standard that preserves the historic or architectural character of a site or building.
DESIGN CONCEPT REPORT(DCR)	A report produced to document criteria necessary to design improvements, identify available data, address alternatives, and recommend a solution to proceed with for final design. Once a DCR is completed, no further alternatives are analyzed.
DEVELOPMENT	Any building, construction, renovation, mining, extraction, dredging, filling, excavation, or drilling activity or operation; any material change in the use or appearance of any structure or in the land itself; the division of land into parcels; any change in the intensity or use of land, such as an increase in the number of dwelling units in a structure or a change to a commercial or industrial use from a less intensive use; any activity that alters a shore, beach, seacoast, river, stream, lake, pond, canal, marsh, dune area, woodlands, wetland, endangered species habitat, aquifer or other resource area, including coastal construction or other activity.
DEVELOPMENT (“IMPACT”) FEES	A.R.S. § 9-463.05 authorizes a municipality to assess development fees to offset costs to the municipality associated with providing necessary public services to a development. A development fee must result in a

beneficial use to the development must bear a reasonable relationship to the burden imposed upon the municipality to provide additional necessary public services to the development, and must be assessed in a nondiscriminatory manner. A development impact fee ordinance must provide a credit toward the payment of a development fee for the required dedication of public sites and improvements provided by the developer for which the development fee is assessed.

ECOLOGICAL ASSETS — Ecological assets are those elements of the Town's Green Infrastructure supporting wildlife, providing an environment for natural processes and vegetation, and constituting scenic views and the natural elements of the Town's setting. Ecological Assets include national forests, parks and wilderness areas, rivers and their 100-year floodplains and washes as well as undeveloped public and private land that has ecological values.

ECOLOGY — The study of totality or pattern or relations between organisms and their environment.

ECONOMIC DEVELOPMENT — The American Economic Development Council (AEDC) definition is "the process of creating wealth through the mobilization of human, financial, capital, physical, and natural resources to generate marketable goods and services." Other definitions include:

- The purposeful intervention into an economy to improve economic well-being.
- The process that influences growth and restructuring of an economy to enhance the economic well being of a community.
- The creation of jobs and wealth, and the improvement of quality of life.

ECONOMY — Activities related to the production and distribution of goods and services in a particular geographic region. The correct and effective use of available resources.

ECOSYSTEM — An interacting system formed by a biotic community and its physical environment.

ECOSYSTEM MANAGEMENT — The deliberate process of understanding and structuring an entire region with the intention of maintaining sustainability and integrity.

EFFLUENT — Liquid or partially solid waste such as is found in sewer systems or discharged from factories.

ELEMENT — A component of the General Plan dealing with specific topics like open space or land use. State law requires each Plan to include certain elements, although the elements may be organized in a number of ways.

ENCOURAGE — To stimulate or foster a particular condition through direct or indirect action by the private sector or government agencies.

ENHANCE	To improve existing conditions by increasing the quantity or quality of beneficial uses or features.
ENVIRONMENT	The circumstances, objects, or conditions by which one is surrounded. The physical conditions including both natural and man made, which exist within an area including land, air, water, minerals, flora, fauna, noise, and objects of historic or aesthetic significance.
ENVIRONMENTAL PLANNING	Environmental planning is "the initiation and operation of activities to manage the acquisition, transformation, distribution, and disposal of resources in a manner capable of sustaining human activities, with a minimum distribution of physical, ecological and social processes."
ENVIRONMENTALLY SENSITIVE ROADWAY DESIGN GUIDELINES	Include context-sensitive design that is in harmony with the community and preserves environmental, aesthetic, and natural resource values of the area. Environmentally Sensitive Roadways are designed to maintain wildlife habitat connectivity through the preservation of natural vegetation density, the preservation of washes, and other measures, and evaluating the need for wildlife crossing structures through wildlife movement studies.
ESSENTIAL FACILITIES	Those facilities whose continued functioning is necessary to maintain public health and safety following a disaster. These facilities include fire and police stations, communications facilities, emergency operation centers, hospitals, administrative buildings, and schools designated as mass care shelters. Also included are key transportation facilities and utility facilities such as water supply, sewage disposal, gas storage facilities and transmission lines, and electric generation stations and transmission lines. Exaction - A contribution or payment required as an authorized precondition for receiving a development permit; usually refers to mandatory dedication (or fee in lieu of dedication) requirements found in many subdivision regulations.
LAND USE PLAN	A plan that guides physical development such as the location of different land uses, open space, circulation, and other important features of a community.
GENERAL PLAN	A legal document which is a plan of a community's general policies regarding the long-term development of its jurisdiction. The plan should include not only general physical development but also public services, social services, and governmental operations. The plan may be a map accompanied by description and supplemented by policy statements. It provides direction to the capital improvements and maintenance programs, forms the legal foundation for the systematic application of zoning regulations, and permits the consistent and coherent application of subdivision regulations.
GUIDELINES	An undetailed statement of policy direction around which specific details may be established later. In community planning this often takes the form of a local jurisdiction's adopting general principles, to which private development must conform, without mapping or describing the

	specific details of what may or may not be built or where (e.g. floating zone).
GOAL	A description of the general desired results to create through the implementation of the General Plan. Goals are included in each element of the Plan and may include the key physical or physical or community characteristics that residents wish to maintain or develop. Broad, long-range statements that represent future visions of the community. A desired state of affairs to which planned effort is directed.
GRADE-SEPARATED	The intersection of two corridors of travel (road/road, road/railroad, road/pathway, road/wildlife corridor, etc.) where one passes over the other, permitting unconstrained operation of both.
GRAY WATER	The less contaminated portion of domestic wastewater, including wash water from clothes washers and laundry tubs.
GREEN BUILDING	Green building refers to a set of building design and construction practices that seek to reduce a building's environmental impacts by improving energy efficiency and indoor air quality, reducing water use and consumption, choosing sustainable building materials, and situating the home in a manner that takes advantage of sunlight and other natural amenities. The holistic and integrated design and construction of the built environment that minimizes the impacts of buildings on the natural environment and our resources. Green building contributes to an increased quality of communities and interior building environments that are more livable while reducing a wide range of unintended consequences due to building construction and use.
GREEN INFRASTRUCTURE	Green Infrastructure refers to an interconnected green space network. This could include natural areas and features, public and private conservation lands, working lands with conservation values, parks, trails and other public and private open spaces.
GREENHOUSE GAS	A greenhouse gas is any gas that absorbs infrared radiation in the atmosphere. Greenhouse gases include, but are not limited to, water vapor, carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), halogenated fluorocarbons (HCFCs), ozone (O3), perfluorinated carbons (PFCs), hydrofluorocarbons (HFCs), and sulfur hexafluoride (SF6).
GROUNDWATER	Water that exists beneath the earth's surface, typically found between saturated soils and rock, and is used to supply wells and springs.
GROWING SMARTER ACT	1998 State Legislation that affected how cities and counties within the state conduct and administer long-range planning activities. This legislation required four new elements and expanded other elements; required additional public notification and involvement; established the requirement of 2/3 majority vote by Town Council for Major Amendments; created a deadline for completion of General Plan updates of December 2001; and required that General Plans be

	readopted every 10 years.
GROWING SMARTER PLUS	2000 State Legislation that revised some of the considerations of the Growing Smarter Act. Growing Smarter Plus required an additional new element, redefined major amendments to the General Plan, and required that General Plan adoptions be ratified by a public vote after Town Council approval.
GROWTH AREAS	Areas of the community that best accommodate future growth allowing an increased focus on creating or enhancing transportation systems and infrastructure coordinated with development activity. Areas of the community that best accommodate future growth allowing an increased focus on creating or enhancing transportation systems and infrastructure coordinated with development activity.
GROWTH MANAGEMENT	The use by a community of a wide range of techniques to determine the amount, type and rate of development desired by the community and to channel that growth into designated areas. Growth management policies can be implemented through building permit caps, public facilities/infrastructure ordinances, urban limit lines, standards for levels of service, phasing, and other programs.
GUIDELINE(s)	An agency statement or a declaration of policy that the agency intends to follow, which does not have the force or effect of law and that binds the agency but does not bind any other person.
HABITAT	The physical, chemical, and biological features of an area that supplies food, water, shelter, and space necessary for a particular species existence.
HIGH-END FEEL	A perceived sense of elegance, pleasing aesthetics, or wealth associated with an object or place.
HOUSEHOLD	Person or persons occupying a dwelling unit.
HUMAN ASSETS	Human Assets are places people interact. They include parks, trails and buildings supporting the social networks of the community. Paths and trails connect Human Activities tone another and to ecological assets. Human assets serve as connections to and between ecological assets when the latter do not naturally connect. An example is The Tortolita Mountains and Fan and trails between area parks.
I-10 (Interstate 10)	The entire I-10 corridor is over 2,400 miles with approximately 700 miles traversing through urban areas. Currently, the average daily traffic throughout the entire corridor is over 41,000 with a maximum over 300,000. Average daily truck traffic is over 8,000 with a maximum over 55,000.

IMPACT FEE	A fee charged to a developer by a jurisdiction according to the proposed development project, typically by number of units, square footage or acreage. The fee is often used to offset costs incurred by the municipality for services and infrastructure such as schools, roads, police and fire services, and parks.
IMPERVIOUS SURFACE	Surface through which water cannot penetrate, such as a roof, road, sidewalk, or paved parking lot. The amount of impervious surface increases with development and establishes the need for drainage facilities to carry the increased runoff.
IMPLEMENTATION	Actions, procedures, programs or techniques that carry out policies.
INCENTIVE	A provision within a development regulation that grants relief from specific compliance upon condition that certain features of a proposal are altered so as to secure some benefit, convenience, or use by the public.
INCLUSIONARY DEVELOPMENT	A development containing [at least 20 percent] low- and moderate-income dwelling units. This term includes, but is not necessarily limited to, the creation of new low- and moderate-income dwelling units through new construction, the conversion of a nonresidential structure to a residential structure, and/or the gut rehabilitation of a vacant residential structure.
INFILL	Infill, in the urban planning sense, in the use of land within a built-up area for further construction, generally focusing on the reuse and repositioning of obsolete or underutilized buildings and sites.
INFRASTRUCTURE	Streets, water and sewer lines, and other public facilities necessary to the functioning of an urban area.
INTER-CONNECTEDNESS	The desirable characteristic of pedestrian or green infrastructure networks in which the network forms complete connections between where people live and where they work, go to school, shop, recreate, and other frequented destinations.
ISSUE(S)	Important unsettled community matters or problems that are identified in a community's general plan and dealt with by the plan's goals, objectives, policies, plan proposals, and action programs.
LAND DEVELOPMENT REGULATIONS	Any zoning, subdivision, impact fee, site plan, corridor map, floodplain or stormwater regulations, or other governmental controls that affect the use and intensity of land.
LAND USE	The occupation or utilization of land or water area for any human activity or purpose.
LAND USE DESIGNATION	One particular category in a classification series of appropriate use of properties established by the General Plan Land Use Element.

LAND USE PLAN	A basic element of a general or comprehensive plan designating the future use or reuse of land within a given jurisdiction's planning area, and the policies and reasoning used in arriving at the decisions in the plan. The land use plan serves as a guide to official decision in regard to the distribution and density of private development, as well as public decisions on the location of future public facilities and open spaces. It also serves as a guide the structuring of zoning and subdivision controls, urban renewal, and capital improvement programs.
LANDSCAPE	Landscape is related to land use. The composite features of one part of the surface of the earth that distinguish it from another area is a *landscape*. It is, then a combination of elements – fields, buildings, hills, forests, deserts, water bodies and settlements.
LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN (LEED)	A voluntary, consensus-based national standard for developing and rating high-performance, sustainable "green" buildings. LEED provides a complete framework for assessing building performance and meeting sustainability goals, such as water savings, energy efficiency, materials selection and indoor environmental quality. LEED standards are currently available or under development for: new commercial construction and major renovation projects, existing building operations, commercial interiors projects, core and shell projects and homes.
LEGISLATIVE BODY	The governing body of a local government with the power to adopt ordinances, regulations, and other documents that have the force of law.
LEVEL OF SERVICE (TRAFFIC)	A qualitative rating of how well a roadway or intersection operates under prevailing traffic conditions.
LINKAGE (WILDLIFE)	An area that links with another or between other similar areas of habitat, allowing for connectivity of wildlife habitat.
LOS ROBLES/BRAWLEY WASH	Los Robles/Brawley Wash is a largely unchannelized was that lies between the Santa Cruz River and the Silverbell Mountains.
LOW-INCOME HOUSING	Housing that is affordable, according to the federal Department of Housing and Urban Development, for either home ownership or rental, and that is occupied, reserved, or marketed for occupancy by households with a gross household income that does not exceed 50 percent of the median gross household income for households of the same size within the housing region in which the housing is located.
MCKINNEY-VENTO ACT	Addressing the needs of homeless youth is required by law through the Stewart B. McKinney Homeless Assistance Act, currently known as the McKinney-Vento Act.
MAXIMUM DENSITY	A density standard based on the type of use (for example, specifying

	the maximum number of dwelling units allowed per acre).
MEGAPOLITAN	Areas that combine several metropolitan areas and expected to be the predominant geographic units for regional planning in the future.
MIDDLE-INCOME HOUSING	Housing that is affordable for either home ownership or rental, and that is occupied, reserved, or marketed for occupancy by households with a gross household income that is greater than 80 percent but does not exceed [specify a number within a range of 95 to 120] percent of the median gross household income for households of the same size within the housing region in which the housing is located. (While the definitions of low-income and moderate-income housing are specific legal terms based on federal legislation and regulations, this term is intended to signify in a more general manner housing that is affordable to the great mass of working Americans. Therefore, the percentage may be amended by adopting legislatures to fit the state's circumstances.)
MITIGATION	Methods used to alleviate or lessen the impact of development.
MIXED USE DEVELOPMENT	A development that allows multiple compatible uses to be in close proximity to one another in order to minimize transportation infrastructure impacts and to create a compact, efficient neighborhood; for example, single family, multifamily, commercial, and industrial uses are located within a reasonable proximity to each other.
MODERATE-INCOME HOUSING	Housing that is affordable, according to the federal Department of Housing and Urban Development, for either home ownership or rental, and that is occupied, reserved, or marketed for occupancy by households with a gross household income that is greater than 50 percent but does not exceed 80 percent of the median gross household income for households of the same size within the housing region in which the housing is located.
MULTI-FAMILY	A land use categorized by three or more families living independently of one another within the same building.
MULTI-USE LANES	When striped and signed appropriately, the paved shoulder of a roadway can provide functions for disabled vehicles, right turning vehicles and bicycle travel.
MULTI-MODAL	Capable of accommodating a variety of transportation modes, such as buses, automobiles, rapid transit, rail, bicycles, and pedestrians. A multi-modal transportation hub is a facility for the transfer of passenger or goods between different modes of transportation.
MULTIUSE PATHS	These are pathways designed wide enough to be simultaneously used by pedestrians, bikers, inline skaters, and similar users. They are generally paved, and the recommended width is at least 10’ to accommodate different types of users safely.

MUNICIPAL OR MUNICIPALITY	An incorporated city or town.
MUNICIPAL CORPORATION	A corporation consisting of inhabitants of a designated area created by the state legislature or by provisions of state law for the purposes of local government. A municipal corporation has a dual character: it exercises those powers assigned to it by state law and exercises other powers for the benefit of its inhabitants. Generally, cities and towns are municipal corporations.
NATURAL HABITAT AREA	An area that sustains animal and vegetative biotic resources that has not been improved or disturbed. Natural Habitat Areas can also be areas that were previously "disturbed" and have been reclaimed or rehabilitated.
NATURAL UNDISTURBED OPEN SPACE (NUOS)	An area of land that is unimproved and not occupied by structures or man-made impervious surfaces that is set aside dedicated or reserved in perpetuity as a conservation area. Trimming plants or raking is prohibited. Rights-of-way (including alleys) are prohibited.
NATURAL RESOURCE	Something (as a mineral, waterpower source, forest, or kind of animal) that occurs in nature.
NEIGHBORHOOD	The smallest sub area in town or city planning, defined as a residential area whose residents have public facilities and social institutions in common. Informal face-to-face contacts and some communal consciousness, either through homeowners' associations or crisis alliances to ward off threatening developments and zone changes also characterize a neighborhood.
NO EXTENSION OF URBAN SERVICES	Those activities, facilities, and utilities that are provided to urban-level densities and intensities to meet public demand or need and that, together, are not normally associated with nonurban areas. Urban services may include, but are not limited to: the provision of sanitary sewers and the collection and treatment of sewage; the provision of water lines and the pumping and treatment of water, fire protection, parks, recreation and open space; streets and roads; mass transit and other activities, facilities, and utilities of an urban nature, such as stormwater management or flood control. A defined area, not always coincidental with a municipality's corporate boundaries, that defines the geographical limits of government-supplied public facilities and services.
NON-NATIVE	Refers to plant or wildlife species outside of their historic range that are introduced to one ecosystem from another ecosystem in which they occur naturally and are indigenous. Some non-native species are invasive and effectively displace native species. Their invasion threatens native ecosystems or commercial, agricultural, or recreational activities dependent on these ecosystems.
OBJECTIVES	Often used interchangeably with the word "goal", an objective is

	defined here as a measurable and verifiable method of achieving a goal.
OPEN SPACE	Open spaces are defined as natural areas that have been defined and protected which may or may not include trails and peripheral facilities (such as parking areas and/or trail heads). Marana's open spaces include natural undisturbed areas including the Tortolita Mountain Preserve, the Santa Cruz River, and Cañada Del Oro Washes, and the Central Arizona Project Canal.
OPPORTUNITY (as opposed to constraint or challenge)	Statements intended to identify actions necessary to meet the goals of an organization. Typically they are more detailed as to the desired outcome, often including numerically defined outcomes or performance targets. Objectives should be realistic and obtainable and ideally describe: 1. The key result to be achieved. 2. A numerical measure of progress. 3. A target date for achievement.
PASEOS	A slow, easy stroll or walk outdoors. The street, series of streets, or walkway along which such a walk is taken
PATH	A cleared way for pedestrians and/or bicycles that may or may not be paved or otherwise improved.
PLAT (OR FINAL SUBDIVISION MAP)	A map of an approved subdivision filed in the county recorder's office. Usually it shows surveyed lot lines, street rights-of-way, easements, monuments, distances, angles, and bearings pertaining to the exact dimensions of all parcels, street lines, and so forth.
PEDESTRIAN-ORIENTED DESIGN	An approach to site and neighborhood design intended to facilitate movement on foot in an area, as opposed to design that primarily serves and encourages automobile movement. Examples of pedestrian-oriented design include pathways following the most direct route from sidewalk to front door, continuous building street walls with shop windows, outdoor cafes, street trees and benches.
PLAN	A document, adopted by an agency, that contains, in text, maps, and/or graphics, a method of proceeding, based on analysis and the application of foresight, to guide, direct, or constrain subsequent actions, in order to achieve goals. A plan may contain goals, policies, guidelines, and standards.
PLANNING COMMISSION	Seven member commission responsible for reviewing and making recommendations to the Town Council on proposals for development, the subdivision of land, amendments to zoning, land use studies, the annual Capital Improvement Program, the General Plan, and other development regulations.
PLAN REVIEW	Plan review is the process of looking over development plans prior to submitting an application for a building permit to ensure new

development meets safety, environmental, and other standards. Early plan review can help to expedite the issuance of building and other development permits by identifying any problems with an application early in the development process.

POLICY — A general rule for action focused on a specific issue, derived from more general goals. A brief, direct statement of what you intend to do to implement your goals and objectives. Ideally, policy formulation is the result of group identification of goals and objectives, represents group consensus, and sets criteria for decision-making. The relationship between these concepts may be illustrated as a planning continuum where goals are the "thinking" phase and strategies lead to the "doing" or implementation phase.

PRESERVATION — The term preservation has several meanings in the housing context. It can refer to historic preservation, in which efforts are made to preserve and retain historic structures in a community, or to the preservation of rental housing, in which efforts are made to stem the loss of affordable rental homes. Rental housing preservation can focus on physical maintenance and repairs, the maintenance of a development's affordability, or both.

PUBLIC FACILITY — Any facility, including, but not limited to, buildings, property, recreation areas, and roads, which are owned, leased, or otherwise operated, or funded by a governmental body or public entity.

PUBLIC HEARING — A meeting announced and advertised in advance and open to the general public wherein the public has an opportunity to comment and participate.

PUBLIC PARTICIPATION PROGRAM — A formal framework for public participation and informative communication in the planning process through coordination with local neighborhood organizations, citizens, media and government officials.

PUBLIC SPACES — Parks, plazas, sitting areas, building entrance areas, sidewalks, trails, piers and similar places that the public may frequent. They should be attractively designed and have amenities such as benches, lights, plantings and in some cases, fountains.

PUBLIC/SEMI-PUBLIC — A land use conducted or a facility owned or operated by a public entity, such as the local government or school district, or a non-profit or religious institution that provides public services.

PUBLIC TRANSIT — A system of regularly-scheduled means of transit, such as buses and/or trains, available to the public on a fee-per ride basis.

QUALITY OF LIFE (MARANA)	Marana's Quality of Life is represented by sustainable choices in: land use, commerce and employment, education, recreation, public safety, aesthetic appeal, transportation/efficient mobility, health, and housing varieties. Where daily living is enhanced by: clean air and water, climate, culture/heritage, open spaces, public transportation, wildlife and natural resources.
RAINWATER HARVESTING	Collection and Re-use or recycling of rainwater for the purpose of garden irrigation, car washing, toilet flushing etc.
ROAD SYSTEM	The classification of streets and highways by their diverse functions and design. The following is a commonly used hierarchy of streets and highways for planning purposes.
RUN-OFF	Water flow over the ground surface to the drainage system. This occurs if ground is impermeable, is saturated or if rainfall is particularly intense.
SANTA CRUZ RIVER	The Santa Cruz, which runs through Marana southeast to northwest, is largely channelized on its east side through the developed portions of the Town.
SENSE OF PLACE	The constructed and natural landmarks and social and economic surroundings that cause someone to identify with a particular place or community.
SMART GROWTH	A development philosophy that includes many of the following aspects: 1. Planning compact, pedestrian-friendly development-mixed use, where people have transportation choices. 2. Creative range of housing opportunities and choices. 3. Fostering distinctive, attractive places with strong sense of place. 4. Preserving open space, farmland and critical environmental areas. 5. Strengthen and direct development towards existing communities. 6. Directing new highway transportation dollars to existing communities to improve safety for walkers, bikers and drivers, and to promote public transportation.
SOLAR ACCESS	The availability of or access to unobstructed, unimpeded direct sunlight.
STANDARD(S)	While often used loosely to refer to all requirements in a zoning ordinance, the term usually is used to mean site design regulations such as lot area, height limits, frontage, landscaping, yards, and floor area ratio as distinguished from use restrictions.
STATE AGENCY	Any department, commission, board, or other administrative unit of state government.
STRATEGIES	Strategies are specific actions that identify what will be accomplished, by who, when, and how. If the goal sets a general direction for action,

	then the strategy specifies exactly how to get there.
STREET	Streets, highways, freeways, expressways, avenues, boulevards, parkways, roads, lanes, walks, alleys, viaducts, subways, tunnels, bridges, public access easements and right-of-ways.
SUBSIDIZED	Refers to a federal, state, or local grant or aid that is extended to the construction or rehabilitation of housing for which a public interest in ensuring that it is affordable is imputed. A subsidy may include, but shall not be limited to: a payment in money; a donation of land or infrastructure; financing assistance or guarantees; a development or impact fee exemption; tax credits; full or partial property tax exemption; or a density bonus or other regulatory incentive to a market rate housing development in order to provide low- and moderate-income housing. A subsidy shall not include federal home mortgage interest deductions.
SUN CORRIDOR (ARIZONA)	A term used by demographers, economists, planners and government officials to describe Arizona's megapolitan region, the corridor stretching from south of Tucson to Flagstaff. The Brookings Metropolitan Policy Program new study, called *Mountain Megas* predicts Arizona, Colorado, Nevada, New Mexico and Utah will become the "New American Heartland" because of those states' current and projected growth. Together, growth in these areas accounts for 13 percent of the country's growth this decade.
SUSTAINABLE ASSETS	The Sustainable Assets are the materials, operations and management approaches used to sustain the Green Infrastructure. These assets are visible (for example solar panels that could be used to power community centers or rest rooms), and operational (leaving certain areas natural which helps to reduce maintenance requirements).
SUSTAINABLE DEVELOPMENT	Development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs.
TELE-COMMUNICATIONS FACILITY	Any facility that transmits and/or receives signals by electromagnetic or optical Means, including antennas, microwave dishes, horns, or similar types of equipment, towers or similar structures supporting such equipment, and equipment buildings.
TOURISM-BASED SUB-ECONOMY	Refers to a specific geographically-bound area, within another larger geographically-bounded area, in which economic activity is driven largely by the tourism or hospitality industry.
TOWN CENTER	A location within the town or city containing an orderly mix of land uses that meets the daily needs of area residents. This mix is intended to contain convenience retail, food services, personnel, and business service uses; community facilities including parks, schools, libraries, and places of worship; and residential uses of a density and location that would accommodate direct pedestrian linkages to the nonresidential facilities. These should be arranged in a manner that is focused around

	a central open space or focal point.
TOWN COUNCIL	The Marana Town Council is a seven-member governing body that makes policy for the Town and directs the allocation of resources through the fiscal budget. They are a non-partisan body elected by Town of Marana residents, including direct elections for the position of Mayor.
TRANSACTION PRIVILEGE TAX (TPT)	The Arizona transaction privilege tax is commonly referred to as a sales tax; however, the tax is on the privilege of doing business in Arizona and is not a true sales tax. Although the transaction privilege tax is usually passed on to the consumer, it is actually a tax on the vendor.
TRANSFER OF DEVELOPMENT RIGHTS	Provides for a market transfer of development rights between landowners and developers. These rights are transferred away from areas designated for preservation, such as agricultural and forestry lands, towards areas deemed appropriate for development.
TRANSPORTATION, (DISTRIBUTION), AND LOGISTICS	Transportation, distribution, and logistics is a broad industry sector responsible for managing the flow of goods, information, and people between a point of origin and a point of consumption in order to meet the requirements of consumers. Major sub-sectors within the industry include air, rail, water, and truck transportation, urban transit and ground passenger transportation, warehousing and storage, and motor vehicle repair. Logistics involve the integration of these sub sectors, including information, transportation, inventory, warehousing, material-handling, and packaging.
TRANSPORTAION CORRIDOR	A combination of discrete, adjacent surface transportation networks (e.g., freeway, arterial roads, rail networks) that link the same major origin and destinations. It is defined operationally rather than geographically or organizationally.
TRANSPORTATION PLAN	A document that provides the rationale, goals, objectives, strategies, and standards for the implementation of transportation improvements. Transportation improvements may be made to roads and driving-related facilities, non-motorized facilities, rail facilities, airport facilities and other transportation facilities. It would normally include a map of the transportation network.
TRES RIOS DEL NORTE SANTA CRUZ RIVER ENVIRONMENTAL RESTORATION PROJECT	The purpose of the Tres Rios del Norte Environmental Restoration Feasibility Study is to determine the feasibility of providing habitat restoration along an 18 mile stretch of the Santa Cruz River from Prince Road to Sanders Road. The study is a cooperative effort between the Pima County Regional Flood Control District, the City of Tucson, the Town of Marana and the U.S. Army Corps of Engineers.

URBAN HEAT ISLAND EFFECT	The urban heat island effect is a measurable increase in ambient urban air temperatures resulting primarily from the replacement of vegetation with buildings, roads, and other heat-absorbing infrastructure. The heat island effect can result in significant temperature differences between rural and urban areas.
UNION PACIFIC RAIL ROAD (UPPR)	Union Pacific Corporation (NYSE:UNP) is one of America's leading transportation companies. Its principal operating company, Union Pacific Railroad, is North America's premier railroad franchise, covering 23 states across the western two-thirds of the United States. The Union Pacific Railroad Sunset Route parallels I-10 for its entire diagonal length through Marana. The route is planned to be double-tracked, with some sections having already been completed.
UNNECESSARY COST GENERATING REQUIREMENTS	Those development standards that may be eliminated or reduced that are not essential to protect the public health, safety, or welfare and are not critical to the protection or preservation of the environment, and that may otherwise make a project economically infeasible. An unnecessary cost generating requirement may include, but shall not be limited to, excessive standards or requirements for: minimum lot size, building size, building setbacks, spacing between buildings, impervious surfaces, open space, landscaping, buffering, reforestation, road width, pavements, parking, sidewalks, paved paths, culverts and stormwater drainage, and oversized water and sewer lines to accommodate future development, without reimbursement.
URBAN GROWTH	Development that makes intensive use of land for the location of buildings, other structures, and impermeable surfaces to such a degree as to be incompatible with the primary use of such land for the production of food, fiber, or other agricultural products, or the extraction of mineral resources and that, when allowed to spread over wide areas, typically requires urban services.
USE	The purpose for which a lot or structure is or may be leased, occupied, maintained, arranged, designed, intended, constructed, erected, moved, altered and/or enlarged in accordance with the town zoning ordinance and General Plan land use designations.
UTILITIES	Any structures or facilities used for production, generation, transmission, delivery, collection, or storage of water, sewage, stormwater, electricity, gas, or electronic signals.
VERY LOW-INCOME HOUSING	Housing that is affordable, according to the federal Department of Housing and Urban Development, for either home ownership or rental, and that is occupied, reserved, or marketed for occupancy by households with a gross household income equal to 30 percent or less of the median gross household income for households of the same size within the housing region in which the housing is located.

WASH	An ephemeral stream; that is, one that flows only during and after rainstorms. Called and *arroyo* in Spanish.
WASTEWATER	Water that has already been used for washing, flushing, or in a manufacturing process, and therefore contains waste products such as sewage or chemical byproducts.
WASTEWATER CONVEYANCE SYSTEM	A collection system designed for the transportation of sanitary sewerage from household and commercial sewerage for a specific area of service. It includes collections from smaller diameter pipes leading to larger pipes as it moves through the system to the water reclamation facility.
WATER RECLAMATION FACILITY (WRC)	A facility designed to remove contaminants from wastewater both household sewage and commercial sewage. It includes physical, chemical and biological process to remove physical, chemical and biological contaminants. The facility is specifically designed to meet the needs of the community and its discharge permits.
WATERCOURSE	Natural or once natural flowing (perennially or intermittently) water including rivers, streams, and creeks. Includes natural waterways that have been channelized, but does not include manmade channels, ditches, and underground drainage and sewage systems.
WATERSHED	The drainage basin, catchment, or other area of land that drains water, sediment, and dissolved materials to a common outlet at some point along a stream channel.
WILDLAND - URBAN INTERFACE AREA	That geographical area where structures and other human development meet or intermingle with wildland or vegetative fuels.
WILDLIFE	Any undomesticated organisms, although the term is sometimes restricted to wild animals, excluding plants. Animals or plants existing in their natural habitat.
ZONING	Classification of land in a community into different areas and districts, generally to separate land uses into appropriate locations. Zoning is a legislative process that regulates building dimensions, density, design, placement and use within each zoning district.
ZONING ORDINANCE	A legal document adopted by the legislative body, including a map that describes the uses of land in different districts in a community, and the regulations pertaining to buildings and uses within those districts. Zoning regulations are the most common regulatory tool used by local governments throughout the country to manage land use and development.

** Klein, W. and Meck, S. 2002. Growing Smart Legislative Guidebook, Model Statutes for Planning and the Management of Change: The Need for Definitions: Chapter 3. Growing Smart[SM] and the Arizona Planning Association. (Growing Smart[SM] is a program of the American Planning Association)

10.2 Agency and Institute/Acronym Descriptions

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)	The American National Standards Institute (ANSI) coordinates the development and use of voluntary consensus standards in the United States and represents the needs and views of U.S. stakeholders in standardization forums around the globe. The Institute oversees the creation, promulgation and use of thousands of norms and guidelines that directly impact businesses in nearly every sector: from acoustical devices to construction equipment, from dairy and livestock production to energy distribution, and many more. ANSI is also actively engaged in accrediting programs that assess conformance to standards – including globally-recognized cross-sector programs such as the ISO 9000 (quality) and ISO 14000 (environmental) management systems.
AMERICANS WITH DIABILITIES ACT (ADA)	Legislation enacted in the United States in 1990 to prohibit discrimination on the basis of physical or mental disability. One of the goals of the ADA is to ensure equal access to public transportation [which includes pedestrian access to facilities open to the public].
ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (ADEQ)	The Arizona Department of Environmental Quality's purpose is to protect human health and the environment by enforcing standards of quality for Arizona's air, land and water. The Department's Air Quality Division issues permits to regulate industrial air pollution sources, regulates vehicle emissions, monitors and assesses the ambient air, and develops air quality improvement strategies. The Department's Waste Programs Division implements programs to minimize waste generation, identifies and corrects improper waste management practices, and oversees the clean-up (remediation) of hazardous waste sites. The Department's Water Quality Division regulates drinking water and waste water systems, monitors and assesses waters of the state, and provides hydrologic analysis to support hazardous site remediation.
ARIZONA DEPARTMENT OF TRANSPORTATION (ADOT)	The State agency responsible for planning, engineering, improving and maintaining major transportation facilities, particularly highways. Improvements to Interstate 10, such as new interchanges, are examples of ADOT jurisdiction affecting Marana's General Plan. The agency also exercises oversight and assistance to other transportation facilities including aviation operations at Marana Regional Airport and the Pinal Air Park.
ARIZONA DEPARTMENT OF WATER RESOURCES (ADWR)	The State agency responsible for securing long-term dependable water supplies for Arizona's communities. The Department administers and enforces Arizona's groundwater code, and surface water rights laws (except those related to water quality); negotiates with external political entities to protect Arizona's Colorado River water supply; oversees the use of surface and groundwater resources under state jurisdiction, and represents Arizona in discussions of water rights with the federal

(ADWR) -continued	government. In addition, the Department explores methods of augmenting water supplies to meet future demands, and develops policies that promote conservation and equitable distribution of water.
ARIZONA REVISED STATUTES (ARS)	The name given to the statutory laws in the state of Arizona. The ARS went into effect on January 9, 1956. It was most recently updated in second regular session of the 48th legislature. There are currently 49 titles, although 3 have been repealed.
ARIZONA STATE TRUST	Lands granted by Congress to Arizona when it became a Territory in 1863. Today, these lands are held in trust for 14 beneficiaries that include public schools, colleges and prisons. By Constitution, the State Land Development acts as the Trustee to determine that land's highest and best use. State Trust lands must be revenue producing.
BROOKINGS INSTITUTION	A nonprofit public policy organization based in Washington, D.C. One of Washington's oldest think tanks, Brookings conducts research and education in the social sciences, primarily in economics, metropolitan policy, governance, foreign policy, and global economy and development.
BUREAU OF RECLAMATION (BOR)	Second largest supplier of wholesale water and hydroelectric power in the American West. Promotes water conservation, recycling, and reuse.
CENTRAL ARIZONA ASSOCIATION OF GOVERNMENTS (CAAG)	A Council of Governments that serves as the regional planning agency for Pinal and Gila Counties. CAAG provides a regional forum for analysis, discussion, and resolution of issues including areas of transportation, environmental quality, community and economic development, job training, and social services.
CENTRAL ARIZONA PROJECT (CAP)	Central Arizona Project is also used to describe the Central Arizona Water Conservation District (CAWCD) which is the governing board for the Central Arizona Project.
DEPARTMENT OF ECONOMIC SECURITY (DES)	The DES has oversight of the state's human services programs, which include family assistance, child protective services, child support enforcement, employment and rehabilitation services, developmental disabilities, adult protective services and numerous community service programs.
FEDERAL EMERGENCY MANAGEMENT (FEMA)	An independent federal agency that provides advise on building codes and flood plain management, teaches people how to get through a disaster, helps equip local and state emergency preparedness, coordinates the federal response to a disaster, makes disaster assistance available to states, communities, businesses and individuals, trains emergency managers, supports the nation's fire service, and administers the national flood and crime insurance programs.
HABITAT FOR HUMANITY	Habitat for Humanity Central Arizona, a Christian-based organization, builds simple, decent and affordable homes in partnership with families in need. Serving Central Arizona since 1985, Habitat for Humanity Central Arizona (HFHCAZ), an affiliate of Habitat for Humanity International, is

an independent, locally run, nonprofit 501 (c)(3) organization. Habitat helps families of low and moderate incomes become homeowners by building and partnering in the creation of affordable housing. HFHCAZ also builds community partnerships that promote spiritual values and individual responsibility.

INTERNATIONAL CODE COUNCIL (ICC)

The ICC is a membership association dedicated to building safety, fire prevention and energy efficiency, develops the codes used to construct residential and commercial buildings, including homes and schools. Most U.S. cities, counties and states that adopt codes choose the International Codes, building safety codes developed by the International Code Council. The International Codes also serve as the basis for construction of federal properties around the world, and as a reference for many nations outside the United States.

NATIONAL INCIDENT MANAGEMENT SYSTEM (NIMS)

NIMS is a comprehensive, national approach to incident management that is applicable at all jurisdictional levels and across functional disciplines. It is intended to:

- Be applicable across a full spectrum of potential incidents, hazards, and impacts, regardless of size, location or complexity.
- Improve coordination and cooperation between public and private entities in a variety of incident management activities.
- Provide a common standard for overall incident management.

PIMA ASSOCIATION OF GOVERNMENTS (PAG)

Pima Association of Governments, a council of government jurisdictions in Pima County which deals with regional planning and distribution of state-shared revenues.

REGIONAL TRANSPORATION AUTHORITY (RTA)

The Regional Transportation Authority, a voter initiated 20 year plan for constructing specific improvement in Pima County. The RTA is administered by Pima Association of Governments (PAG).

10.3 Marana Planning Documents

Marana Parks, Recreation, Trails and Open Space Master Plan	This Master Plan recognizes how the Town of Marana Parks and Recreation Department provides critical operational and quality of life services for Marana residents and defines goals, policies, and action strategies for facilities and programs enabling the Department to continue these services over the next decade.
Marana Transportation Plan Update (adopted July 2001)	This study investigates the existing conditions of all transportation facilities within the Town including roadways, bicycle facilities, pedestrian facilities and transit systems. Deficiencies in the current operations of these modes are identified and recommendations are presented to address existing and future limitations. Additional funds will be needed to implement the study recommendations and possible funding sources have been outlined for each mode. The recommendations in this study will become a part of the Marana General Plan, which will guide future development in the community.
Draft Habitat Conservation Plan (HCP)	The draft, and when adopted, the final Habitat Species Conservation Plan will provide policies and guidance regarding open space in Marana. (Contact the Town for the most current version of this document.)
Draft 2009 Transportation Strategic Plan	This draft Transportation Strategic Plan introduces innovative methodologies for addressing the growth and mobility challenges faced by the Town, and connects the reality of today to the promise of tomorrow. A promise of a safe, efficient, and sustainable transportation system that reflects Marana's values and keeps pace with our growing and diverse transportation needs. The Plan will serve as a framework to assist the Town in achieving a successful, well-balanced, multimodal transportation system that provides mobility for all. The Plan is intended to promote sustainability, economic vitality, a healthy environment, and the preservation and enhancement of neighborhood livability and the overall quality of life within the Town of Marana.
Marana Regional Airport Part 150 Noise Study (2006)	A Noise Compatibility Study is a technical review of the existing and future noise impacts of aircraft operations in the vicinity of the Marana Regional Airport. The study complies with the Code of Federal Regulations Volume 14, Part 150. The Noise Compatibility study is a specialized analysis, with a resulting comprehensive plan, which outlines specific approaches to managing airport noise and land use compatibility with the airport.
Master Plan Update Study for the Marana Regional Airport (2006)	An airport master plan provides a strategic forecast for airport facilities and infrastructure to support current and future aviation demands. The Master Plan Update Study for the Marana Regional Airport will provide a long-range forecast for airport development over the next 20 years. A proposed schedule of all future projects listed in order of construction

Marana Capital Improvement Plan	priority together with cost estimates and anticipated means of financing each project. Included are all major projects requiring the expenditure of public funds over and above the annual local government's operating expenses, for the purchase, construction, or replacement of the physical assets for the community. The scheduling of budgetary expenditures for infrastructure to guide and pace development.
2007 Marana General Plan	The General Plan is the primary tool for guiding the future development of the Town. On a daily basis the Town is faced with choices about growth, housing, transportation, environmental preservation, and services for its citizens. The General Plan helps guide these choices by describing long-term goals for the Town's future. Those goals are the basis for policies and actions to guide day-to-day decisions. The 2007 General Plan provided long-term vision and guidance in ten plan elements: Circulation, Cost of Development, Economic Development, Environment, Growth Areas, Housing, Land Use, Public Facilities and Services, Recreation and Open Space, and Water Resources.
2010 Public Participation Plan	The Town's Public Participation Plan details the procedures that can be utilized in the rewrite of the Town's General Plan (as well as any subsequent major amendments that may occur. The 2010 Marana General Plan Public Participation Program (PPP) takes a proactive approach in planning and providing communication for all those who want to be involved in the decision making process to develop a General Plan of which the community (as a whole) will approve. The public participation plan conforms to state requirements as described in A.R. S. 9-461.06-B and seeks broad-based input from public officials and agencies, affected jurisdictions, civic, educational, and professional organizations, property and business owners and the general public. The PPP seeks to facilitate and educate, outreach to all segments of the community. In this way the Town can build consensus, and create opportunities for citizen involvement in local government.
Pima County Regional Trail System Master Plan (2010)	New trail standards, signing, and trail alignments and trail locations highlight this planning effort updating the 1996 Eastern Pima County Trails Master Plan. The Plan also covers trails, parks, trailheads, nodes, and boundary access points, various crossings (grade-separated and at-grade), and bicycle and pedestrian focused improvements. It specifically identifies several trails, river parks, paths and greenways within the Town including the Juan Bautista de Anza Trail along the Santa Cruz River, Rillito and Cañada Del Oro River Parks, paths and/or trails along Tangerine, Barnett, Moore, Silverbell, Postvale, Sanders Roads, trail alignments along the Butterfield Stage Route and the Central Arizona Project (CAP) and Greenways along Tangerine Road, Avra Valley Road and Sandario Road. In addition, the Plan includes backcountry trails in Tortolita Mountain Park, the Brawley Wash, and routes into the Ironwood Forest National Monument.

Pinal County Open Space and Trails Master Plan (2008)	Pinal County adopted its Open Space and Trails Master Plan in 2008. The County Plan establishes the Juan Bautista de Anza (de Anza) Trail alignment, recognizes the trail along the Central Arizona Project and proposes two additional alignments within the Pinal County portion of the Marana Planning Area. It identifies Tortolita Mountain Park as a passive recreation resource. The Plan also identifies Pinal County, the Bureau of Land Management (BLM), Bureau of Reclamation (BOR), Arizona State Land Department (ASLD) and private property owners as the primary entities responsible for implementation of planned parks and trails within Marana's Planning Area.

The Town of Marana (Town) places great value in its citizenry. Maximizing citizen participation opportunities in the development of the 2010 General Plan will provide a more effective and meaningful General Plan. The Town's Public Participation Plan details the procedures that can be utilized in the rewrite of the Town's General Plan (as well as any subsequent major amendments that may occur).

10.4 Introduction

The 2010 Marana General Plan Public Participation Program (PPP) takes a proactive approach in planning and providing communication for all those who want to be involved in the decision making process to develop a General Plan of which the community (as a whole) will approve. This public participation plan conforms to state requirements as described in A.R.S. 9-461.06-B and seeks broad-based input from public officials and agencies, affected jurisdictions, civic, educational, and professional organizations, property and business owners and the general public. The PPP seeks to facilitate and educate, outreach to all segments of the community. In this way the Town can build consensus, and create opportunities for citizen involvement in local government.

Public participation occurs throughout all phases of the development of the General Plan and is driven by the General Plan timeline, divided into four phases (as detailed in Figure 1). Please note that prior to the beginning of Phase one, Town staff completed internal work that included collecting and reviewing related studies, plan, policies and existing conditions.

Public outreach begins in the first phase. Town Staff is available to attend civic and community meetings to provide information about the General Plan rewrite. Staff compiles the gathered information and creates a draft plan. The General Plan Core Working Group (Core Group) is the primary driver of the second phase. The Core Group is made up of Town Staff who will review and incorporate appropriate changes generated from the public participation activities. The complete draft 2010 General Plan is available for public review and comment in the second phase. In the third phase the draft plan goes through the major General Plan amendment process. This required process includes extensive public involvement along with two Planning Commission Public Hearings and one Town Council public hearing. The fourth phase is the final phase. Per State Statute, the General Plan is placed on the ballot for voters to consider ratifying the update.

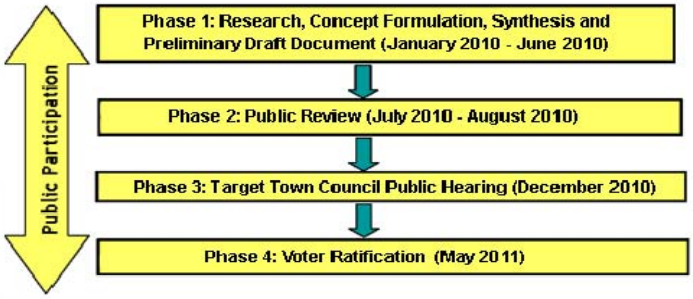

Figure 1: General Plan Development Phases

10.2 THE GENERAL PLAN CORE WORKING GROUP

During the development of the general plan, a framework was considered that builds upon the essential ingredients to a quality of life: land use management, the built environment, social infrastructure, resource conservation and natural systems. Like the spokes on a wheel, each spoke is equally important to the movement of the wheel (Figure 2). The 2010 General Plan Core Working Group will consist of five sub-core groups that will form the foundation of the 2010 General Plan.

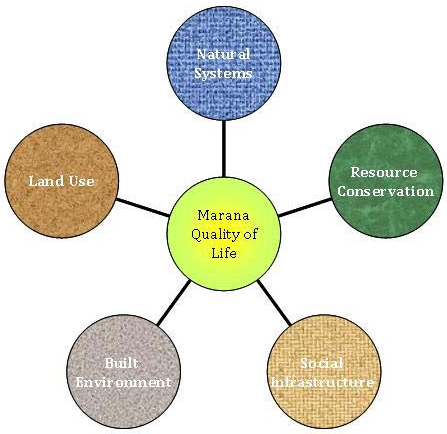

Figure 2: Quality of Life Spokes

10.3 FOSTERING COMMUNITY ENGAGEMENT

Town staff will be responsible for conducting public outreach and communication for the development of the plan in a number of ways. Staff will organize activities to solicit public interest, provide information to focus groups and stakeholders, and moderate at open houses and chair at public meetings to ensure that stakeholder's collective and individual concerns, including citizen comments, are folded into the draft general plan for consideration.

10.4 PUBLIC INVOLVEMENT OPPORTUNITIES

The Town will provide multiple public involvement opportunities for participating in various aspects of the decision making process, including brainstorming, drafting, reviewing and editing the draft General Plan. Groups involved include the Marana Town Council, and the General Plan Work Core Group. Town staff will address comments and will incorporate them appropriately.

Stakeholder Contact List

The Town will create and maintain a stakeholder contact list. The Contact List is a dynamic list that will be revised and enhanced by the Town as needed. Identified stakeholder groups include civic organizations, neighborhood groups and advocacy groups. The Core Contact list will includes the following entities:

1. Government Agencies
2. Public or quasi-public groups
3. Semi-Public Providers/Facilities
4. Marana Chamber of Commerce
5. Service Groups, such as the Rotary Club and Lions Club
6. Neighborhood and Homeowner Associations
7. Minority Advocacy Groups
8. Human Services Providers

9. Special needs populations that serve disabled or other special populations including youth or senior citizen clubs
10. Environmental advocacy groups
11. Recreational advocacy groups including the Pima Trails Association, equestrian, bicycling, and hiking groups
12. Agricultural and Ranching groups
13. Mining industry groups
14. Major developers and landholders
15. Home Building industry groups
16. Cultural Heritage interest groups

Each core group if desired can receive, either through the mail or electronically, all notices of public workshops or hearings, newsletters and other communications pertaining to the development of the general plan, including changes in the draft plan and the overall planning process. At any time during the planning process, any interested party can request to be added to or deleted from the core notification list.

Stakeholder Interviews

Community leaders and other individuals representing a broad range of interests may be interviewed to provide input to assist in setting direction within the planning process. Alternatively, these individuals may be added to the core group contact list, and be invited to participate in the development of the plan throughout that process.

Community Open House (workshops)

Initial discussions will begin with a public open house, where the general community is invited to participate in reviewing "draft" documents, existing documents, maps and data, and to share opinions as to future goals and strategies for managing growth and development in the Marana Planning Area.

Schedules for the update process include multiple opportunities for community-wide open houses or workshops. These informational meetings will conduct outreach to different segments of the community. These events will complement one-on-one stakeholder interviews and the more informal small group outreach conducted. The community open houses will be timed to coincide with major General Plan milestones in the general plan process.

Town Website

The Town will use its internet website to provide public information on the General Plan process and furnish an electronic e-mail address for public comments. The website contains:

1. Background information and a frequently asked questions document that responds to potential citizen questions, i.e. what is the General Plan? How is it

important to the Town? Opportunities for online feedback will also be available on the 2010 General Plan web page.

2. Periodic updates on the planning process, phasing, as well as a schedule of upcoming events and summaries of public comments.
3. Copies of the final draft 2010 General Plan as submitted to the Planning Commission.
4. The General Plan approved by the Town Council, and information regarding the last phase of the process, public voting on the plan.
5. General Plan contact information and an e-mail address to which the public can make written comment on the draft plan or planning process.

Town Newsletter

To ensure maximum public contact in a timely manner the Town shall also use the Town Newsletter to disseminate information and solicit public input to the draft plan. Public service announcements and press releases will be made available to local media to publicize upcoming events in the General Plan process.

Public Hearings

The Town of Marana will hold a minimum of two public hearings before the Planning Commission. In addition a public hearing will be held before Mayor and Town Council.

The Town of Marana will provide public notice of the time and place of such public meetings a minimum of 15 and not more than 30 calendar days prior to the date of the public hearing. Public notice will be published in the Daily Territorial newspaper.

Notification of public hearings will be listed on the Town of Marana website and posted in Town of Marana public service buildings, including community libraries and locations where Town development services are provided. Notice will be provided to any adjacent or involved local jurisdictions and agencies, such as the City of Tucson, the Town of Oro Valley, Pima County, Pinal County, Pima Association of Governments (PAG), Central Arizona Association of Government (CAAG), and the following state agencies: Arizona Department of Transportation (ADOT) and Arizona Department of Commerce. Citizens may request to be notified of the public hearings and notices can be mailed, faxed, or emailed to them as well. Public comments may be submitted to the Town in person, writing, by e-mail, or telephone.

10.5 REVIEW AND ADOPTION BY TOWN COUNCIL

The Marana 2010 General Plan will go through a major General Plan amendment process. The Town will be the applicant and will be proposing the 2010 General Plan. The adoption and amendment process of the Town of Marana General Plan will comply with A.R.S 9-461.06. The Planning Commission must hold two public hearings and the Mayor and Council must hold one public hearing prior to adoption/readoption or major

amendment of the General Plan. Legislation also requires a supermajority vote by the Mayor and Council for the document to be adopted/readopted or amended in a major way. A.R.S 9-461.06 (G) defines "major amendment" as "substantial alteration of the municipality's land use mixture or balance as established in the municipality's existing General Plan land use element." This subsection further states that the General Plan will provide criteria to determine what "substantial alteration" is and what it is not.

10.6 VOTER RATIFICATION

Once the revised General Plan is adopted, the Mayor and Council will submit the Plan to the citizens of Marana for ratification. Such an election will be held pursuant to A.R.S. 16-204. Should the voters not approve the proposed plan, the current General Plan will remain in effect until voters ratify a new General Plan. The General Plan Update will be placed on the 2011 ballot. Before the election, the Town of Marana will provide either a copy of the entire document or a summary in a brochure-type format for public review, in addition to providing a "general description" of the plan in the municipal election pamphlet. Hard copies of the document will be available at the Town of Marana Development Services Center, 11555 W. Civic Center Drive. The document will also be displayed and available to print on the Town's website.

10.5 Public Participation Plan Resolution

MARANA RESOLUTION NO. 2010-10

RELATING TO THE GENERAL PLAN; MAJOR AMENDMENT PROCESS AND ADOPTION OF THE PUBLIC PARTICIPATION PLAN

WHEREAS, the Town of Marana approved and adopted the current Marana General Plan on December 19, 2007 (Resolution 2007-232); and

WHEREAS, in 1998 and 2000 the Arizona Legislature adopted the Growing Smarter Act and Growing Smarter Plus Act requiring Arizona cities and counties to prepare and adopt new General Plan requirements, including the adoption of enhanced public participation and notification procedures for the update and subsequent amendment of community General Plans; and

WHEREAS, in order to evaluate and subsequently respond to changing growth issues, Marana will update its current General Plan in compliance with the Growing Smarter legislation by December 31, 2010; and

WHEREAS, in order to guide the process of the General Plan amendment, the Town will follow written procedures for public involvement that will provide for effective, early and continuous public participation from all geographic, ethnic and economic areas of the community; and

WHEREAS, written public involvement procedures have been updated that assure a process for maximum public involvement in local planning by providing for: 1) Broad dissemination of proposals and alternatives; 2) Opportunity for written comments; 3) Public hearings after notices; 4) Open discussions, communications and information services and; 5) Consideration of the public comments; and

WHEREAS, the Mayor and Council of the Town of Marana have determined that approving the updated Public Participation Plan for the 2010 Marana General Plan Major Amendment is in the best interest of the residents of Marana.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE TOWN OF MARANA, ARIZONA, that the Public Participation Plan for the 2010 Marana General Plan Major Amendment be approved.

Marana Resolution No. 2010-10

Page 1 of 2

PASSED AND ADOPTED BY THE MAYOR AND COUNCIL OF THE TOWN OF MARANA, ARIZONA, this 26th day of January, 2010.

Mayor Ed Honea

ATTEST:

Jocelyn C. Bronson, Town Clerk

APPROVED AS TO FORM:

Frank Cassidy, Town Attorney

Marana Resolution No. 2010-10

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10.6 Summary of Specific Plan Land Uses

Summary of Specific Plan Land Uses						Residential Categories				*Open Space	Resource Extraction
Specific Plan	**Adoption Date (Ordinance Number)**	**Total Acres**	**Industrial**	**Commercial**	**Mixed Use**	**RDR (0 - .5)**	**LDR (.6 - 3.0)**	**MDR (3.1 - 8.0)**	**HDR (8.1 +)**		
Anway Farms	4/5/88 (88.08)	70.09		54.4	15.69						
Barrios de Marana	3/20/2007 (2007.03)	38			20				18		
Casa Sevilla	5/17/2005 (2005.13)	34.65					34.65			50%	
Cascada	12/5/2006 (2006.23)	1454		83.7			469.3	326.7	61	21.1%	
Continental Ranch	4/5/1988 (88.09)	2418	215.55	260.33				1426.25	79.4	13.8%	102.77
DeAnza	10/2/2007 (2007.27)	133					40	93		44%	
Dove Mountain	3/28/2000 (2000.04)	5567.9		395.41		1100.81	1840.25	361.44	277.19	35.7%	
The Estate Lots at Tortolita Preserve	6/3/2003 (2003.11)	72.6				72.6				80%	
Forest City	1/5/1988 (88.11)	309		146				114.5		15.7%	
Foothills	2/22/1990 (90.11)	414		70			267			11.6%	
Gladden Farms II	3/7/2006 (2006.03)	636		177.5			93.9	322.9	30.9	11.4%	
Honea Heights III	3/16/2010 (2010.05)	37.7						37.7		50%	
Las Pilas	3/14/2008 (2008.06)	420		1.5				39.06	13.81	21.5%	
Mandarina	2/17/2009 (2009.02)	342.3		157.8	90.6			52.4			
Marana Gardens	5/3/1988 (88.10)	9.5						9.5			
Marana Main Street	11/18/2008 (2008.24)	28			28						

10.6 Summary of Specific Plan Land Uses

Marana Spectrum	8/7/2007 (2007.19)	166.75		166.75							
Marana Towne Center	6/17/2008 (2008.14)	99			99						
Northgate	4/2/1991 (91.09)	111.19		47.7					64.2		
Pima Farms	5/30/1989 (89.21)	738		30			45	638	26	23.5%	
Pima Farms North	5/30/1989 (89.20)	110		20				80	10	17.8%	
Rancho Marana (East)	2/6/1990 (90.04)	242		147					75		
Rancho Marana (West)	2/15/2005 (2005.05	754		124				343	11		
Sanders Grove	3/1/2005 (2005.09)	845		18.5				795.5	31.1	10%	
Sky Ranch	10/2/2001 (2001.14)	515						103		80%	
Saguaro Springs	11/15/2005 (2005.14)	217	10					175.5		13.3%	
Tangerine/Thornydale	10/2/2007 (2007.24)	58.84		11.28				32.01		26.4%	
The Shops at Tangerine & I-10 Motorplex	1/8/2008 (2008.01)	281		281							
Tortolita Shadows	In Progress	278		33	35			170		14.4%	
Tortolita Vistas	1/4/2005 (2004.26)	230					154			32.1%	
Tangerine Commerce Park	12/20/2005 (2005.27)	494		112						6.5%	311
Uptown at Marana	11/6/2007 2007.25	188		88	29			67		15%	
The Villages of Tortolita	4/30/2007 (2007.09)	1780	93.17		411.94			1275.33		8%	
all units of measure are in acres (except for open space)	**Total:**	**19092.52**	**318.72**	**2425.87**	**729.23**	**1173.41**	**2944.1**	**6462.79**	**697.6**		**413.77**

*Percentage of Specific Plan Area; Not All Specific Plans Provide A Number or Percentage for Open Space Due to Varying Circumstances. **Some Specific Plans provide Open Space as an overlay area within the development.

10.7 Marana Economic Activity Centers

In order to achieve successful economic growth, the *Marana Economic Roadmap* identifies nine economic activity centers, each having its own set of opportunities and challenges due to the unique characteristics within the Marana Planning Area. This level of comprehensive planning allows the Town to focus its investment and resources on creating a variety of unique places that will attract commerce and economic activities. The intent of the activity center concept is to target specific businesses or encourage appropriate types of development to locate in a specific activity center. The ultimate outcome is the ability for Marana to create a well-rounded community with appropriate locations to support a variety of economic development opportunities that are compatible with surrounding land uses and have the necessary infrastructure support. The nine economic activity centers are located throughout the town (see the Economic Activity Centers Map in Section 7.3) and are identified as:

1: Heritage Activity Center
2: Dove Mountain Activity Center
3: Tangerine Road I-10 Activity Center
4: Tangerine Corridor Activity Center
5: Airport Activity Center
6: Downtown Activity Center
7: South Marana Activity Center
8: Twin Peaks Activity Center
9: Transportation Logistics Zone Activity Center

A description and map of each activity center is located below.

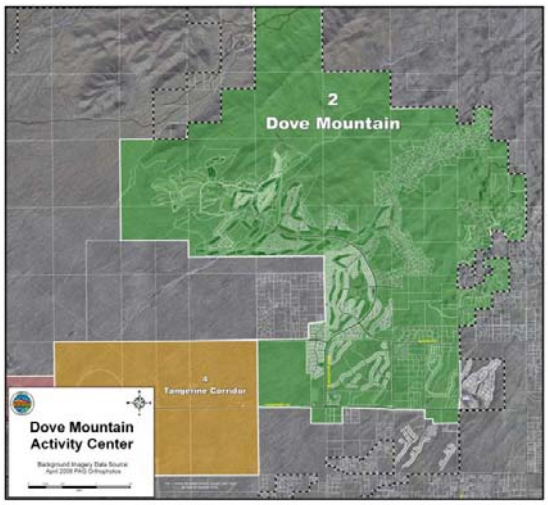
1: Heritage Activity Center

The 30 acre Heritage Park serves as the focal point for showcasing the region's rich heritage and history. A trail system connecting various interpretive exhibits along the river will provide an exciting and informative eco- and heritage-tourism experience that will be a destination for visitors. Various additional interpretive sites showcasing the area's heritage will also be distributed throughout the community.

In conjunction with the Heritage Park and other amenities celebrating Marana's centuries of agrarian history, local growers' produce will be sold through local Farmers' Markets and events.

Techniques should be explored (e.g., signage and design standards) to identify this area as Marana's Heritage Center that attracts visitors to the community but also serves to bring the community together and create a sense of pride for residents and the business community.

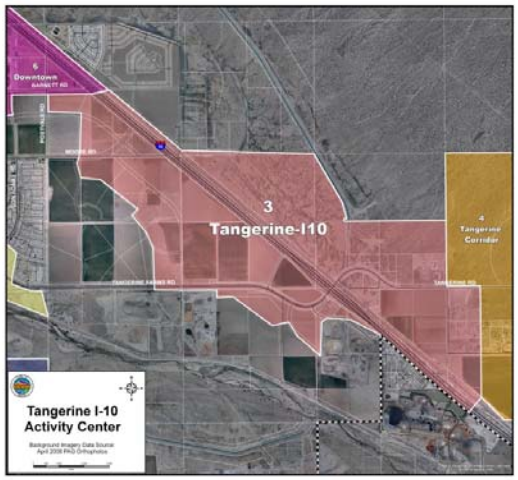
2: Dove Mountain Activity Center



The Dove Mountain activity center is intended to be a world-class destination offering tourism and experience opportunities with its resort focus. The area currently includes quality residential development which is expected to continue. Improved access is needed with the expansion of Tangerine Road as an east-west corridor and Camino de Manana as a north-south corridor. Much of the area is currently undeveloped and provides an opportunity to create the type of development consistent with that which has already occurred.

The Sonoran Desert experience will be an integral component of the development within the Dove Mountain Activity Center. This activity center will continue to develop high quality resorts and related hospitality industry commerce that is reflective of the natural setting. The Dove Mountain area is unique in Marana and this development standard should be strongly reflected.

Future planning must ensure that there are adequate residential services and a mix of activities that will appeal to visitors (e.g. nighttime activities, unique shopping and entertainment opportunities). Design guidelines should be enforced to ensure that the natural and built environment are integrated and enhance the area's visual appearance. Collaboration with Arizona State Land Department (ASLD), which holds much of the land on the Tangerine Corridor, will be essential.



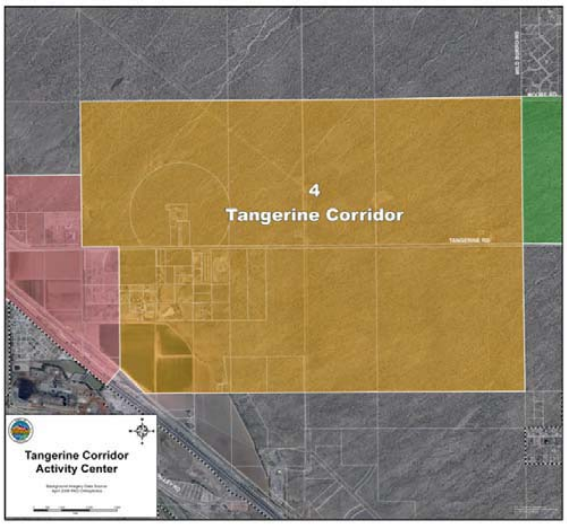
3: Tangerine Road I-10 Activity Center

The configuration of Tangerine Road I-10 Activity Center was determined by the Council-approved Single Central Business District. A new I-10 interchange that addresses the railroad crossing issue (at grade rail crossing adjacent to interchange) is essential for this activity center to reach its potential. Plans to build the new interchange are completed and funding

for this project should continue to be pursued. This area offers mixed-use opportunities that include residential, commercial and employment area development.

Water, sewer and other infrastructure should be planned, programmed and installed in coordination with the interchange reconstruction.

4: Tangerine Corridor Activity Center

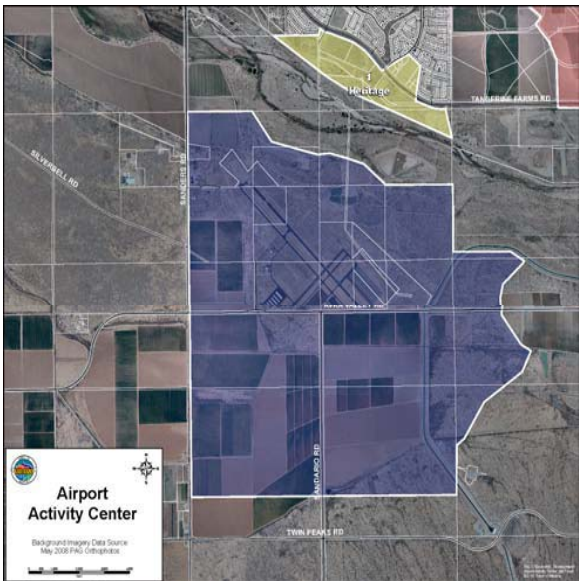


This Tangerine Corridor Activity Center area along Tangerine Road between the Dove Mountain and Tangerine Road and I-10 activity centers will serve as a key location for high technology businesses and business park development. The corridor will be sensitively planned with setbacks and clustered development so as not to develop in a linear, strip commercial-type pattern.

This area will also serve as a "transition corridor" between the employment center development in the Tangerine Road and I-10 Activity Center and the recreation, resort and tourism amenities in the Dove Mountain Activity Center Development of basic and telecommunication infrastructure will be required along the length of the corridor to ensure that the Town can maximize economic opportunities.

5: Airport Activity Center

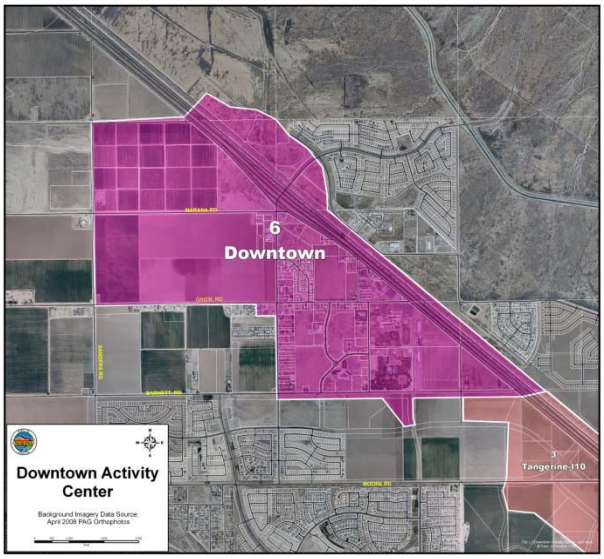
The Airport Activity Center is anchored by the Marana Airport and its 6,900 foot main runway. It is a tremendous asset for Marana and a major piece of the Transportation Logistics strategy. It offers opportunities for manufacturing and distribution and is poised to become a center for corporate and executive travel.



Improvements in basic infrastructure are needed and much of the land around the airport is managed by ASLD. Close collaboration with ASLD will be required to ensure that the activity center reaches its potential. Developing move-in-ready buildings at the airport will place Marana

at the forefront of attracting quality firms that cannot wait to build their own facilities.

This activity center also includes a Bureau of Reclamation site that is planned to be developed into a destination amateur sports park which is intended to draw visitors and participants to Marana.



6. Downtown Activity Center

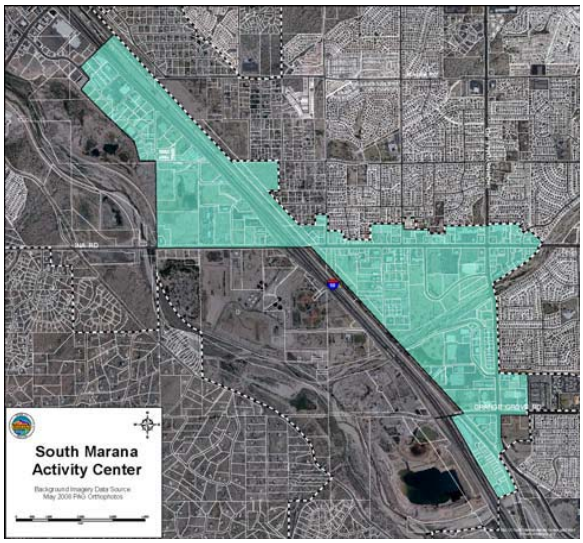
Creating a thriving activity center as the core of the community is critical for establishing a strong community identity and sustainable economic base. The heart of Marana historically was where regional farmers came together to share information and sell goods. It provided the sense of community within a vast agricultural area. Establishing and capturing this strong sense of place is critical for Marana residents as well as for visitors.

The municipal complex and health center are the first major investments in Downtown Marana. Major infrastructure upgrades are needed and improved access from I-10 must be developed. The area has multiple landowners that will play an important role in the implementation of the vision for Downtown Marana. Successful downtowns need more than infrastructure, they need people. The Downtown Activity Center will include a strong residential component that will create 24/7 activity that will help local businesses succeed. It is anticipated that the activities and establishments in this activity center will support the Tourism and Visitor Experience target industry. Downtown Marana as currently envisioned is a large activity center, identified as part of the Council-approved Single Central Business District. This area can include a variety of development areas tied together with unifying design features and a multimodal transportation network that might include a trolley or other form of transit and pedestrian system. Comprehensive planning and creative techniques will need to be employed to achieve “walk-ability” and a unified design theme.

7: South Marana Activity Center

Much of South Marana Activity Center area was built before being annexed by the Town of Marana and is some of the oldest development in the community. Over time, this activity center will need refurbishing to remain competitive with new shopping and activity areas being developed in other parts of the community and region. Appropriate redevelopment will ensure that new and existing buildings are developed or redeveloped according to the Town of Marana’s codes and standards.

The area east of I-10 continues to enjoy a tremendous amount of traffic and commerce. There is also a successful business park development west of I-10. South Marana and the "Golden Triangle" area include a mix of retail and commercial businesses that has historically served as the business hub of the northern Tucson metropolitan area. In order to ensure continued development and redevelopment, improvements to Ina Road will be required. It will be critical to improve circulation patterns in the area and to beautify the corridor to spur additional private sector investment.



8: Twin Peaks Activity Center

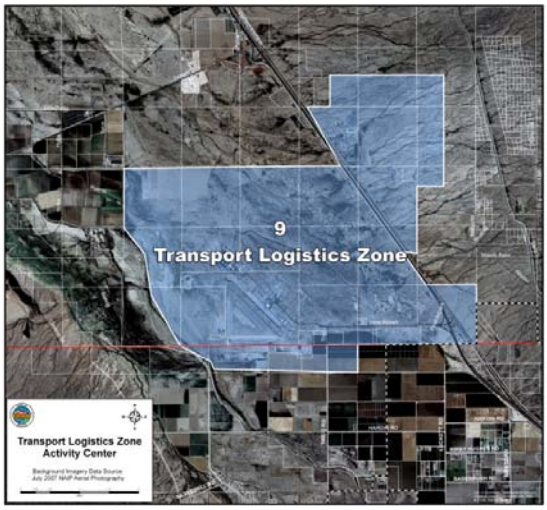
A key east-west roadway connection will be completed when the Twin Peaks Interchange project is finished (expected late 2010). This important connection will serve as a catalyst for new development. There has been considerable interest in businesses locating in this general area. This activity center already has some industrial activities on the west side of I-10 and offers retail and residential development opportunities on the east side of I-10.

Once additional transportation improvements are completed, more parcels will have access and can be developed. There is a need for water and sewer infrastructure on the west side of I-10.

9: Transportation Logistics Zone Activity Center

While currently out of the town's corporate limits, this activity center's proximity to I-10, Pinal Airpark and planned rail system improvements provides tremendous opportunities for intermodal transportation, logistics and freight activities. The future potential of this activity center may hinge upon the Town's decision to annex and its success in annexing all or part of the area. Even if this area does not become part of the Town of Marana, the regional impacts of successful development in this activity center could be very positive for Marana.

It is important that this area be planned carefully to ensure a compatible land use pattern. Transportation Logistics are typically heavy industrial uses and incompatible land use patterns such as residential neighborhoods or schools might jeopardize the economic development potential of this Activity Center. This type of economic development takes a long time to occur and the area must be protected from incompatible land uses.



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10.8 Implementation Actions

Actions are divided by elements. Each action item has a discrete number that links to the policy or goal most associated with it. The columns entitled 'Goals' and 'Policies' refer to policies in the Marana 2010 General Plan. The Action column identifies a specific action needed to implement each policy. Each Action Item is matched with the department or division primarily responsible for implementation of the task.

1. LAND USE AND GROWTH ACTIONS

Goal	Policy	Land Use and Growth Short-term Action Items	Primary Responsibility

Goal	Policy	Land Use and Growth Medium-Term Action Items	Primary Responsibility

Goal	Policy	Land Use and Growth On-Going Action Items	Primary Responsibility