

## CHAPTER 1.0 INTRODUCTION

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Under the authority provided in 16 United States Code (U.S.C.) 431, the Ironwood Forest National Monument (IFNM or monument) was established by Presidential Proclamation 7320 (Proclamation) for the purpose of protecting biological, cultural, geological, and other resource values (Appendix A). The U.S. Department of the Interior (USDI), Bureau of Land Management (BLM) Tucson Field Office has the responsibility of planning for and management of the IFNM.

In accordance with the Federal Land Policy and Management Act of 1976 (FLPMA), BLM is responsible for management of public lands and its resources based on the principles of multiple use and sustained yield. Management direction is provided by land use plans, which determine appropriate multiple uses, allocate resources, develop strategies to manage and protect resources, and establish systems to monitor and evaluate the status of resources and effectiveness of management. Land use plans are intended to guide management, allowing response to new legislation, changing policies, and changing uses of public land over extended time periods.

### 1.1 PURPOSE OF AND NEED FOR THE RESOURCE MANAGEMENT PLAN

A resource management plan (RMP) is being developed for the IFNM for two reasons: to specifically address management of lands within the IFNM in reference to the monument designation, and to implement BLM's policy to prepare a stand-alone RMP for all National Landscape Conservation System (NLCS) units, including the IFNM. Presently, the land within the IFNM is managed under the 1989 Phoenix Resource Area RMP (Phoenix RMP) as amended by the Arizona Standards for Rangeland Health and Guidelines for Grazing Administration (USDI, BLM 1997), the Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management (USDI, BLM 2003a), and the 1987 Eastern Arizona Grazing Environmental Impact Statement (EIS), when decisions in these documents are consistent with the Proclamation. Wildlife habitat plans, such as the Silver Bell Habitat Management Plan, and allotment management plans provide specific management direction and actions for wildlife and range programs on lands within and immediately adjacent to the IFNM. In addition, BLM has been following an interim guidance document for managing public land within the IFNM until the new RMP is completed and approved (USDI, BLM 2001a).

Since the Phoenix RMP and Eastern Arizona Grazing EIS were developed, numerous changes have occurred in the planning area that require reconsideration of existing management decisions. The most significant change in relation to this RMP is the establishment of the IFNM, but other changes are also relevant. For example, the continuing urban growth of the Tucson and Marana metropolitan areas has increased the demand for public land to accommodate many forms of recreational activity, and these pressures demand increased consideration of management for the protection of monument resources and values.

### 1.2 OVERVIEW OF THE PLANNING AREA

The IFNM lies in the Sonoran Desert ecosystem of southern Arizona, and is a unique scenic area of rolling desert and ironwood woodlands including the Silver Bell, Waterman, Roskruge, and Sawtooth Mountains. Much of the vegetation in this area is classic Sonoran Desert upland habitat, dominated by saguaro, Bigelow's cholla, and staghorn cholla cacti. Other common vegetation includes ironwood and paloverde trees, creosotebush, brittlebush, triangle-leaf bursage, ocotillo, and white thorn acacia. Jojoba dominates the chaparral community on the upper slopes of the Silver Bell Mountains. The lower bajadas contain inter-braided streambeds that carry water after heavy rains. These desert wash habitats are characterized by large ironwood, blue paloverde, and mesquite trees.

The IFNM encompasses most of the mountain ranges that are important to the diverse wildlife and plant communities associated with the ironwood/saguaro forest. In addition, the IFNM contains habitats for several endangered species and species of concern (e.g., desert tortoise), an area of critical environmental concern (ACEC) to protect an endangered cactus, and a desert bighorn sheep special management area. IFNM also includes a site and two archaeological districts listed on the National Register of Historic Places (National Register), and historical mining camps and other cultural resources that are eligible for listing on the National Register.

The IFNM is located in Pinal and Pima Counties, Arizona, approximately 80 miles south of Phoenix and 25 miles northwest of Tucson, Arizona (Map 1-1: Location of the Ironwood Forest National Monument in Arizona). The IFNM is bordered by the Tohono O’odham Indian Reservation on the west and unincorporated county land otherwise. The closest population center is the Town of Marana to the east. The IFNM boundaries encompass Federal public land, Federal military land, State Trust Land, and private land (Map 1-2: Surface Management). Table 1-1 summarizes acreages by surface manager or owner.

**Table 1-1: Surface Management/Ownership of Land Within the IFNM**

<b>Surface Administrator/Owner</b>	<b>Acres<sup>1</sup> within the Planning Area</b>	<b>Percent of Planning Area</b>
BLM	128,398	68
State of Arizona	54,741	29
Pima County	632	<1
Department of Defense	299	<1
Private	4,549	3
<b>TOTAL</b>	<b>188,619</b>	<b>100</b>

SOURCE: U.S. Department of the Interior, Bureau of Land Management 2003b

NOTE: <sup>1</sup> Unless otherwise noted, acreages specified in this document are derived from a geographic information system (GIS) based on the best available data.

Three terms used in this document describe the areas under study. The “planning area” includes all lands within the boundaries of the IFNM, regardless of ownership or jurisdiction. The planning area in this case is 188,619 acres. The “decision area” is all public land and all Federal mineral estate within the boundaries of the IFNM, over which BLM has decision authority. Federal mineral estate is sometimes located beneath land owned or managed by entities other than the Federal Government. Lands where this occurs are referred to as “split estate” lands. BLM’s decision area comprises 128,398 acres of surface land and 149,360 acres of Federal mineral estate, about 17,900 acres of which are split estate. The land use allocations, designations, and management prescriptions presented in Chapter 2 apply only to public lands and mineral estate administered by the BLM. If non-Federal lands are acquired, they would be managed according to the allocations depicted on the maps. The term “study area” also is used to describe the area being studied. The aerial extent of the study area differs for some resources or resource uses. The study area for most resources is the planning area; however, certain resources or resource uses are more appropriately addressed using a larger area when potential effects would extend beyond the planning area. For example, this is the case with the effects on air quality and on social and economic conditions within the region.

### **1.3 PURPOSE, SIGNIFICANCE, VISION, AND GOALS OF THE IFNM**

The IFNM was established to protect an area within the Sonoran Desert that is representative of the richness and diversity of this unique desert environment that stretches from the American Southwest into Mexico. The lands are significant because they are host to biological communities that have endured for centuries, and because they contain superb vistas of native vegetation against dramatic mountain scenery.

The vision statement for the IFNM reflects a concern to preserve this valuable resource, as well as make it available to an appreciative community that has enjoyed unrestricted access over the years. The sections below provide an expanded description of the purpose of the IFNM, the area's significance, and the vision statement that was developed to guard and showcase this natural resource, as well as the goals established for the protection of monument objects. All of these have been and will continue to be used to guide development of this RMP and subsequent management actions.

The overall management purpose is derived, principally, from the FLPMA, which recognizes the value of our Nation's public land and was established to protect the quality and health of public lands for the use and enjoyment of later generations. Other laws and legal mandates also are considered during the process, and help establish goals and objectives for the planning area. Partner agencies, American Indian tribes, and the public have all been invited to participate in the RMP process. The following statements of purpose and significance of the IFNM, and the goals established for the IFNM have been derived from an elaborate collaboration of effort that incorporated consideration of all of the above.

### **1.3.1 Purpose**

The IFNM was designated to protect the richness of resources within the monument, including the drought-adapted vegetation of the Sonoran Desert within its borders. Stands of ironwood, paloverde, and saguaro populate the foothills beneath the rugged mountain ranges, including the Silver Bell Mountains and Ragged Top. The purpose of the IFNM is to preserve, protect, and manage the cultural and geological resources, and other objects of this area for future generations, and to further our knowledge and understanding of these resources through scientific research and interpretation.

### **1.3.2 Significance**

The IFNM was established to preserve a quintessential part of the Sonoran Desert and preserve outstanding views of ancient legume and cactus forests. The variations in topography and geological features within the monument's boundaries provide the context for a rich diversity of biological communities. The ironwood, for which the monument is named and which is able to survive in excess of 800 years, generates a chain of influences on associated understory plants, affecting their dispersal, germination, establishment, and rates of growth. Ironwood is the dominant nurse plant in the region, providing, among other things, roosting sites for hawks and owls, forage for desert bighorn sheep, protection for saguaros against freezing, burrows for tortoises, flowers for native bees, dense canopy for nesting white-winged doves and other birds, and protection against sunburn for night blooming cereus.

The ironwood-bursage habitat in the Silver Bell Mountains is associated with more than 674 species, including 64 mammalian and more than 70 bird species. The IFNM is home to species listed as threatened or endangered by the Federal Government, including the Nichols Turk's head cactus and the lesser long-nosed bat. In addition, the IFNM provides habitat for desert bighorn sheep, Sonoran Desert tortoise, and other wildlife of special concern.

In addition to the rich biological and geological resources and objects, the planning area holds abundant rock art sites and other archaeological objects of scientific interest. Humans have inhabited the area for more than 5,000 years. More than 200 sites from the prehistoric Hohokam period (600 A.D. to 1450 A.D.) have been recorded in the area. Two archaeological districts have been identified within the IFNM and listed on the National Register—the Los Robles Archeological District and the Cocoraque Butte Archeological District. The planning area also contains the remnants of the Mission Santa Ana de Cuiquiburitac, the last mission constructed in the Pimería Alta, which also has been listed on the National Register.

### **1.3.3 Vision**

BLM enlisted the public's participation in crafting a vision statement for the IFNM that would help guide development of the RMP. A series of public workshops held in the spring of 2004 to introduce BLM's programs and the planning process produced a statement calling for both preservation and access: "Ironwood Forest National Monument is a place where the Ironwood-rich Sonoran Desert ecosystem, including its open spaces, outstanding vistas, and unique resources, is conserved, protected, and enhanced while providing opportunities for recreation, education, and other allowable uses for the enjoyment and appreciation of present and future generations."

### **1.3.4 Overarching Goals**

The following management goals have been derived from the vision for the IFNM, as described above:

- Protect, enhance, and restore biodiversity, habitat integrity, and population viability of the native biotic community.
- Protect cultural resources to conserve their integrity and values.
- Protect biological, geological, and archaeological objects of scientific interest, and views of the Sonoran Desert.
- Provide for compatible, sustainable multiple-use and safe enjoyment of public land.
- Encourage community and agency coordination and collaboration for managing and protecting the monument.
- Expand understanding and appreciation of the IFNM and its natural and cultural resources.
- Use a landscape-based approach to maintain and enhance the natural, cultural, and scenic resources of the IFNM.
- Pursue partnerships to promote social and economic benefits to local communities, visitors, organizations, interest groups, and future generations, and to enhance management of public land.

## **1.4 LEGISLATIVE REQUIREMENTS**

The RMP process is both inspired and constrained by the Proclamation, FLPMA, and the National Environmental Policy Act (NEPA). These and other regulations and policies provide the framework for management of the IFNM.

### **1.4.1 Presidential Proclamation 7320**

President William J. Clinton issued Presidential Proclamation 7320 to establish the IFNM on June 9, 2000. Its stated purpose is to reserve the public land within the boundaries of the IFNM established by the proclamation to protect sensitive biological, cultural, geological, and other resource values bound up in the land of that area. The Proclamation is provided in Appendix A.

### **1.4.2 Federal Land Policy and Management Act of 1976**

FLPMA established in 1976 that public land be managed according to the principles of multiple use and sustained yield, and in a manner that affords protection to the natural environment. In accordance with

those goals, BLM manages public lands so that they are used in a combination that will best meet the present and future needs of the American people for renewable and nonrenewable natural resources.

### **1.4.3 National Environmental Policy Act**

NEPA was signed into law in 1970. As a result of its passage, the Federal Government cannot undertake any “major federal action” unless and until the environmental consequences of that action have been thoroughly assessed. The act requires that the Federal Government adhere to a standard procedure for determining the environmental impact of decisions and/or projects, and encourages decision-makers within Federal agencies to consider the environmental impact of every major project with Federal involvement. NEPA also requires Federal agencies to involve interested groups and the public in its decision making process (42 USC 4331).

### **1.4.4 Other Regulations and Policies**

This Draft RMP/EIS is being developed in accordance with the requirements set forth in the BLM H-1601-1 Land Use Planning Handbook, all current instruction memorandums and bulletins; Title 43, Code of Federal Regulations 1600 (43 CFR 1600); BLM supplemental guidance; Council on Environmental Quality (CEQ) guidelines for implementing NEPA (40 CFR 1500-1508), and other associated regulations and guidance.

## **1.5 PLANNING CRITERIA**

BLM planning regulations (43 CFR 1610) require the preparation of planning criteria as preliminary to the development of all plans. Planning criteria establish the principles that will guide the development of the plan and influence all aspects of the planning process, including collection of resource and resource use inventory data, development of alternatives, analysis of impacts, and ultimately the selection of a preferred alternative. In effect, planning criteria ensure the planning process remains focused on the identified issues, and prevent unnecessary data collection and analysis.

Planning criteria are developed on the basis of applicable laws, agency guidance, public involvement, data analysis, professional judgment, and coordination with other Federal, State, and local governments and American Indian tribes. Appendix B provides the planning criteria for this planning effort and identifies the laws, regulations, and policies that form the basis for these criteria.

## **1.6 PLANNING PROCESS AND COLLABORATION**

After the IFNM was established by Presidential Proclamation in June 2000, the BLM Tucson Field Office initiated the collaborative process that would build a solid foundation of community trust and respect throughout the preparation of the Draft RMP/EIS. The initial public involvement effort occurred prior to public scoping, as there was strong public support for the IFNM and a corresponding interest in how it would be managed. Public informational meetings were held between August 2000 and March 2002 to encourage the community dialogue. These meetings were well attended and a diversity of interests were represented. Representatives from several conservation and user groups, as well as Federal, State, tribal, and local agencies were in attendance. Other public information efforts included presentations to community councils, business and social groups, and various organizations.

The formal public scoping process was initiated on April 24, 2002, with publication of a notice of intent to prepare the RMP/EIS in the *Federal Register*. A detailed description of all issues identified during scoping, can be found in the IFNM Scoping Report (USDI, BLM 2004a). The scoping report is available on the BLM’s web site at <http://www.blm.gov/az/lup/ironwood/reports.htm>.

BLM hosted nine meetings in communities throughout southern Arizona. After public scoping was completed, BLM continued to have informal discussions with agencies, organizations, and individuals interested in the IFNM RMP/EIS. BLM also attended various organized meetings as a guest to provide information regarding the IFNM RMP/EIS.

BLM also hosted meetings in September and October 2004 to provide information regarding preservation of wilderness characteristics, access, educational opportunities, public health and safety, social and economic conditions near the IFNM, and military uses in and around the IFNM. BLM also arranged a series of field trips, as requested by the workshop participants. Seven field trips occurred between December 2004 and March 2005, covering the IFNM-related topics of mining, cultural resources, ranching uses, recreational uses, wildlife waters, vegetation, and wildflowers and birding.

In August 2005, BLM hosted a workshop on the preliminary draft alternatives to present the range of management strategies that would be considered for the IFNM. During and following this meeting, BLM accepted comments from the public on the preliminary draft alternatives, and used these comments to broaden the range of alternatives to what is now analyzed within this Draft RMP/EIS. In addition, BLM met with representatives of the Tohono O'odham Nation in January 2006 to review specific aspects of the alternatives.

### **1.6.1 Cooperating Agencies**

(CEQ regulations, which are contained in 40 CFR 1501.6 and 1508.5, implement the NEPA mandate that Federal agencies responsible for preparing NEPA analysis and documentation do so “in cooperation with State and local governments” and other agencies with jurisdiction by law or special expertise (42 USC 4331(a), 4332(2)). Cooperating agency status allows interested agencies to assume responsibilities beyond attending public meetings, and to both review and comment on plan documents. In support of this mandate, BLM invited more than 200 Federal, State, local, and tribal agencies to become cooperating agencies on the development of the IFNM RMP, and a cooperating agency meeting was held at the BLM Arizona State Office on October 30, 2002, to discuss BLM’s planning process, collaborative planning, and the meaning and responsibilities of cooperating agency status. Opportunities for involvement in BLM’s planning process without becoming a cooperating agency also were discussed.

The Arizona Game and Fish Department (AGFD) established a Memorandum of Understanding (MOU) with the BLM Arizona State Office to work as a cooperating agency on various plans within the State, including the IFNM RMP. The MOU describes the responsibilities of BLM and AGFD with regard to the planning process. The agencies’ responsibilities as outlined in the MOU are consistent with the Sikes Act (16 U.S.C. 670 et seq.), which authorizes the USDI, in cooperation with State agencies responsible for administering fish and game laws, to plan, develop, maintain, and coordinate programs for conserving and rehabilitating wildlife, fish, and game on public lands within its jurisdiction. Beyond the development of the RMP, BLM and AGFD will continue to work cooperatively to manage resources within the IFNM. BLM is responsible for managing wildlife habitat on BLM land and AGFD, through the authority of the Arizona Game and Fish Commission, has public trust responsibility to manage fish and wildlife. The close, cooperative nature of the relationship is cited throughout this document. At the writing of the Draft RMP/EIS, BLM and AGFD are revising the current Master MOU, which establishes protocols that direct the cooperative working relationship between the agencies. The MOU will provide context to better enable both agencies to work in partnership and to make decisions in a consistent manner across the state. The guidelines established in the MOU apply to implementation of this RMP.

Though no other State agency or county or local government agreed to be a cooperating agency during development of the Draft RMP/EIS, several have been actively engaged in the planning process. BLM has worked closely with the Arizona State Land Department (ASLD) to coordinate management on public

lands in the monument and set up a framework for future cooperative agreements regarding specific lands and routes that are administered by ASLD within the boundary of the IFNM. Pima and Pinal Counties initially expressed interest in becoming cooperating agencies, but instead have participated through various meetings with BLM, as well as the public meetings. In addition, the City of Marana established a specific agreement with the BLM to collaborate throughout the process.

### **1.6.2 Tribal Consultation**

As part of the scoping effort, BLM contacted the following tribes to initiate consultations and reissue an invitation to participate as a cooperating agency:

- Tohono O’odham Nation
- Gila River Indian Community
- Ak-Chin Indian Community
- Pasqua Yaqui Indian Community

Though none chose to assume cooperating agency status, all elected to remain involved in the planning process. Due to their proximity to the IFNM, BLM also arranged meetings with the Gila River Indian Community in October 2004 and the Tohono O’odham Nation in August 2005 to brief tribal members on the progress of the planning process and identify ways to remain engaged. BLM also provided the preliminary draft alternatives to the tribes in September 2005. In addition, BLM met with representatives of the Tohono O’odham Nation in January 2006 to review specific aspects of the alternatives.

## **1.7 PLANNING ISSUES**

Planning issues are derived from scoping, which takes place in the preliminary stages of the planning process to solicit public and agency input to help identify the relevant issues and define the range of environmental analysis to be undertaken for the Draft RMP/EIS.

The planning issues identified through the scoping process included a variety of resources and resource uses. The comments and issues identified assisted in determining the scope of the studies completed and addressed in this Draft RMP/EIS. However, some issues raised during scoping were considered but not analyzed in detail such as (1) wilderness designations, (2) the immediate elimination of livestock grazing, and (3) designation of a new route network, as recommended by a consortium of interested parties. These issues were not analyzed because BLM does not have authority to establish wilderness areas or wilderness study areas (WSAs); the Proclamation allows for continued grazing; and the proposed route network did not consider access to private inholdings or State Trust Land, where BLM could be required to provide access (see Section 2.2, Alternatives Considered but Not Analyzed in Detail). Potential decisions about the planning issues identified below are presented in Chapter 2 (Alternatives).

Key planning issues considered for developing alternatives in this Draft RMP/EIS included the following:

### **1.7.1 Vegetation**

- What management actions will provide for preservation of existing plant communities and biodiversity?
- How will BLM manage potential impacts on plants from recreation, land development on State Trust Lands and private inholdings, grazing, and areas where there are existing mining claims?

- How will grazing and off-highway vehicle (OHV) use be managed for preventing the introduction and spread of noxious weeds into and within the IFNM?

#### **1.7.2 Wildlife and Wildlife Habitat**

- What management actions will protect wildlife and wildlife habitat?
- How will nearby human activity be managed to limit adverse impacts on the desert bighorn sheep population and lambing habitat?
- How will BLM manage potential conflicts with habitat and wildlife corridors from grazing, recreational shooting, camping activities, OHV use, land development on State Trust Lands and private inholdings, grazing, and areas where there are existing mining claims?

#### **1.7.3 Special Status Species**

- How will BLM give precedence to protection and restoration of habitat for threatened and endangered species and wildlife of special concern (as listed by the AGFD) species identified by local governments?

#### **1.7.4 Cultural Resources**

- How will BLM manage public access to potentially sensitive cultural resource sites?

#### **1.7.5 Visual Resources**

- How will BLM manage threats to scenic values of the IFNM from visitor facilities and OHV use?

#### **1.7.6 Wilderness Characteristics**

- How will BLM manage areas within the IFNM to protect wilderness characteristics?

#### **1.7.7 Energy and Mineral Resources**

- What management actions will be conducted to avoid potential impacts on wildlife, vegetation, water quality, and soil resources from ground-disturbing activities within the IFNM, including mining where valid existing rights occur?

#### **1.7.8 Grazing/Livestock Management**

- How will BLM manage grazing to be compatible with multiple uses within the IFNM?

#### **1.7.9 Recreation (including visitor facilities)**

- What management actions will be conducted to limit recreational activities (e.g., hiking, horseback riding, biking, camping, hunting, and recreational shooting) to protect resources within the IFNM from degradation?
- What visitor facilities should BLM provide within the IFNM?

#### **1.7.10 Lands and Realty**

- How will BLM evaluate and/or prioritize land acquisitions of private and State Trust Land within the IFNM boundaries?

### **1.7.11 Travel Management**

- How will BLM manage access into the IFNM from adjacent lands and communities (e.g., State and private inholdings and Tohono O’odham Nation lands)?

## **1.8 RELATED PLANS**

Based on the location of the IFNM, BLM reviewed and considered existing Federal, State, and local management plans that relate to the IFNM. Federal plans include recovery plans from the USFWS for federally listed species. The State plans cover the management of water resources through Active Management Areas (AMAs) by the Arizona Department of Water Resources (ADWR) and the management of fish, wildlife, and natural habitats through the Comprehensive Wildlife Conservation Strategy by the AGFD. Local plans include comprehensive plans for Pima and Pinal Counties (Pima County 1992; Pinal County 2001). In addition, the general plans for the cities of Tucson and Marana have been reviewed, though the IFNM lies outside the municipal boundaries of both cities (City of Tucson 2001; Town of Marana 2002). Relevant information from each of these plans is summarized below. The Tohono O’odham Nation, a neighboring jurisdiction, does not have a land use plan for areas near the IFNM. Planning decisions for land within the Tohono O’odham Indian Reservation typically are made on a case-by-case basis and involve community, district, and tribal leaders and elected officials in a decision-making process that parallels that of the U.S. Government. Land is primarily administered by the Tohono O’odham Tribal Council and political subdivisions of the Tohono O’odham Nation, called districts. The Schuk Toak and Sif Oidak districts parallel the western boundary of the IFNM.

### **1.8.1 Federal**

In 1986, the USFWS developed a Recovery Plan and Habitat Management Plan for the endangered Nichol Turk’s Head Cactus (*Echinocactus horzonthalonius var. nicholii*), which occurs within the IFNM. The recovery plan and the habitat management plan exist “to remove the species from the federally threatened and endangered list by managing and protecting the essential habitat of the existing population and by decreasing collection pressure” (USDI, USFWS 1986). The recovery plan is achieved by protecting seventy-five percent of the existing known habitat. Alleviating threats to the species’ habitat, enforcing laws against collection of the species, and development of a Habitat Management Plan are included as species recovery actions. The Habitat Management Plan identifies the following management objectives: (1) protect the habitat, (2) provide optimum habitat for naturally occurring populations, and (3) assist in the recovery of the plant (USDI, BLM 1986a).

In 1994, the USFWS developed the Lesser Long-nosed Bat (*Leptonycteris curasoae verbabuenae*) Recovery Plan. The plan requires protection of bat roost sites and columnar cacti (food source for bat), and monitoring and survey for undiscovered the roost sites and bat populations. The plan also calls for public education and information about the beneficial aspects of the bat species. USFWS also must conduct ongoing research of the bats’ life history, population census, and reproduction and mating systems to assist in species recovery (USDI, USFWS 1994).

### **1.8.2 State**

ADWR establishes management plans for AMAs throughout Arizona. Two AMAs are relevant to the IFNM, the Pinal and Tucson AMAs. The overall goals of the AMAs are to (1) achieve a safe-yield groundwater supply by 2025 so that the amount of groundwater pumping that occurs within AMAs does not exceed the natural or artificial recharge amount, and (2) preserve future water supplies coupled with the preservation of existing agricultural economies (ADWR 1999a, b). Both management plans consist of

water conservation programs for agriculture, industrial, and municipal programs along with plans for maintaining groundwater quality, aquifer recharge efforts, and implementation plans.

AGFD developed a Comprehensive Wildlife Conservation Strategy, which is a 10-year vision for managing Arizona's fish, wildlife and natural habitats. This effort included input and partnerships with various agency cooperators, sportsman and recreational groups, conservation organizations, special interest groups, Native American tribes, county and municipal governments, and the general public (AGFD 2006). The Comprehensive Wildlife Conservation Strategy serves to ensure that funds provided through the program are spent wisely and effectively on restoration and enhancement of wildlife populations and habitat. Projects supported by State wildlife grants can include restoration of degraded habitat, reintroduction of native wildlife, development of partnerships with private landowners, education of the public, and collection of data to find out more about declining species.

### **1.8.3 County and Local**

#### **1.8.3.1 Pima County**

The Pima County Comprehensive Plan promotes the conservation and preservation of Sonoran Desert ecology through public policy and community programs that address water conservation, habitat protection, and preservation of washes and protected ridges and peaks (Pima County 1992). The plan offers strategies to incorporate consideration of the "desert community" into all urban planning efforts in recognition of the region's unique scenic beauty, desert ecology, and cultural heritage. The Conceptual Land Use element priority program is a design review mechanism included in the plan to ensure that development responds to its natural surroundings. Pima County has developed this regional comprehensive plan to encourage each jurisdiction within the county to recognize and protect the unique features that characterize the county (Pima County 1992).

Pima County also developed the Sonoran Desert Conservation Plan, which integrates six conservation elements to protect the County's natural resources (Pima County 1998). BLM is identified in the plan as an active governmental agency committed to acquiring additional land for the purpose of natural resource conservation which, in some cases, makes county action unnecessary. Pima County recognizes the benefits to the larger regional planning process of the efforts of other agencies, including elements of BLM plans and the actions of other Federal, State, and local entities.

Lands adjacent to the IFNM are designated as low intensity rural, resource productive, and resource conservation areas, all three of which are special designations to protect the unique qualities or characteristics of the area or provide incentives to promote certain types of development. In order to preserve and protect significant open space in the vicinity of public preserves while encouraging reasonable use of lands for economic development, the Pima County Code Buffer Overlay Zone was created. The land use regulations for properties within the overlay zone stipulate that "mechanisms to protect public preserves and result in an ecologically sound transition between the preserves and more urbanized development will be established" and will "neither promote nor discourage changes in underlying zoning, but rather provide continuing performance standards for the unique lands" within the zone. Land parcels of 25 acres or more within 1 mile of public preserves are subject to Buffer Overlay Zone conformance standards.

#### **1.8.3.2 Pinal County**

The Pinal County Comprehensive Plan states that growth is "transforming the region from an agricultural center to a vibrant commercial, industrial, and recreational hub. The comprehensive plan addresses the challenges facing the county and presents opportunities for the continuing success and diversity of the region." The natural environment element of the plan focuses on preserving and protecting the natural and

cultural heritage of Pinal County through protection of scenic areas, cultural resources, wildlife habitat, natural plant communities, wildlife corridors, and riparian areas. Goals and objectives have been developed to protect Pinal County's natural beauty and environmental quality and promote a balance between conservation of the natural environment and development (Pinal County 2001).

The Pinal County areas adjacent to the IFNM are designated as rural, a designation that includes lands that are non-urban and are suitable for lower density development including agriculture, grazing, mining, sand and gravel operations, large-acre home sites, small farms, minimal to non-existent public services, open space, and selected industrial uses (i.e., those not requiring an industrial use permit). Areas designated as rural are not suitable for urban development, only low-density housing is allowed. Single-family density housing cannot exceed one dwelling unit per acre and multiple-family development is "discouraged from locating in the rural land use category until it is reclassified to another land use."

### **1.8.3.3 City of Tucson**

The City of Tucson has developed a general plan to provide guidance and balance in areas of growth. The plan recognizes the Pima Association of Governments "Regional Vision Statement" and the benefits of coordinating with regional jurisdictions and agencies in planning for parks, recreation, open space, and trails. The plan encourages designation of natural preserves and establishment of large parks to complement open space on public lands.

The general plan provides for establishment of desert belts and expanded linear parks to link public lands while providing protection for plants and wildlife. It emphasizes Tucson's commitment to preservation of natural resources and establishes policy to preserve interconnected, undisturbed open spaces. These policies focus largely on providing open space for public use and the implementation of open space preservation principles to positively impact desert wildlife, natural habitats, cultural preservation, and critical and sensitive lands (City of Tucson 2001).

### **1.8.3.4 Town of Marana**

The Town of Marana has developed a general plan and supplemental plans to provide specific regulations for development (Town of Marana 2002). The plans emphasize three main goals: community values, orderly growth, and economic opportunity. Growth and economic development are closely linked to the natural environment and conservation of the large natural open space surrounding Marana, primarily managed by Federal, State, and local entities.

The plan emphasizes the need for preservation of natural and cultural resources and the provision of open space with the intent to guide future development in an environmentally sensitive manner. More specifically, it recommends that guidelines and mitigation standards be created for any development within 1 mile of Saguaro National Park, IFNM, and the Tortolita Mountains in order to protect unique biological habitat areas within natural open space ecological areas and riparian corridors, protect viewsheds of natural open space and significant natural features (Town of Marana 2002).