

West Valley Multi-Modal Transportation Corridor Master Plan

(A component of the West Valley Recreational Corridor)

Final Implementation Strategies Action Plan



The MAG West Valley Multi-Modal Transportation Corridor Master Plan is funded through the Arizona Department of Transportation (ADOT) Transportation Enhancement Fund Program.

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In association with:



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INTRODUCTION

This Implementation Strategies Action Plan (Action Plan) serves as both a stand-alone document and a supplement to the West Valley Multi Modal Transportation Corridor Plan—a component of the West Valley Recreation Corridor. The Action Plan outlines several strategies and funding sources for the implementation of the proposed 42-mile, shared-use trail network to be developed for bicyclists, pedestrians, equestrians, physically challenged persons and other non-motorized trail users in the West Valley. Because this urban trail corridor falls within several different jurisdictions (incorporated cities) and land management agencies (state and local), it is critical that a regional and community partnering approach be a foremost fundamental consideration if the West Valley Multi-Modal Corridor Project is to become a reality.

Presented below is an overview of the Corridor, the project's purpose, and its vision, goals and objectives. Strategies for implementing the Corridor Plan are discussed, including responsible jurisdictions/agencies and other groups needed to carry out the Corridor Plan. In addition, funding sources for constructing the trail system are described, including a recommended timeline for project implementation, based on need. Lastly, operational and maintenance considerations for the trail system prescribe several ways to coordinate trail management efforts, once the trail segments are developed and available for use by residents in the MAG region.

The MAG West Valley Multi-Modal Transportation Corridor Plan identifies a multi-phased development approach for the implementation of a long-term trails program including design goals. The three steps described below represent a progression for the philosophy and mission of a public trail network for the New River and Lower Agua Fria River Corridor.

Step One: Master Plan

Identify the vision and basic trail design concepts that will shape the overall character of the West Valley Multi-Modal Transportation Corridor - New River and Lower Agua Fria River (*the MAG West Valley Multi-Modal Corridor Master Plan*).

Step Two: Implementation Plan

Establish trail operation and maintenance guidelines, implementation strategies and actions tied to specific trail segments developed as a part of the Master Plan, define management responsibilities and trail design goals for the entire Corridor system (*this Implementation Strategies Action Plan*).

Step Three: Funding, Design, and Build Trails

For each trail segment, secure funding sources, obtain necessary clearances, and complete individual recommendations and development plans, including specific land acquisition, design and construction criteria outlined in the Master Plan (*future planning and implementation phase*).

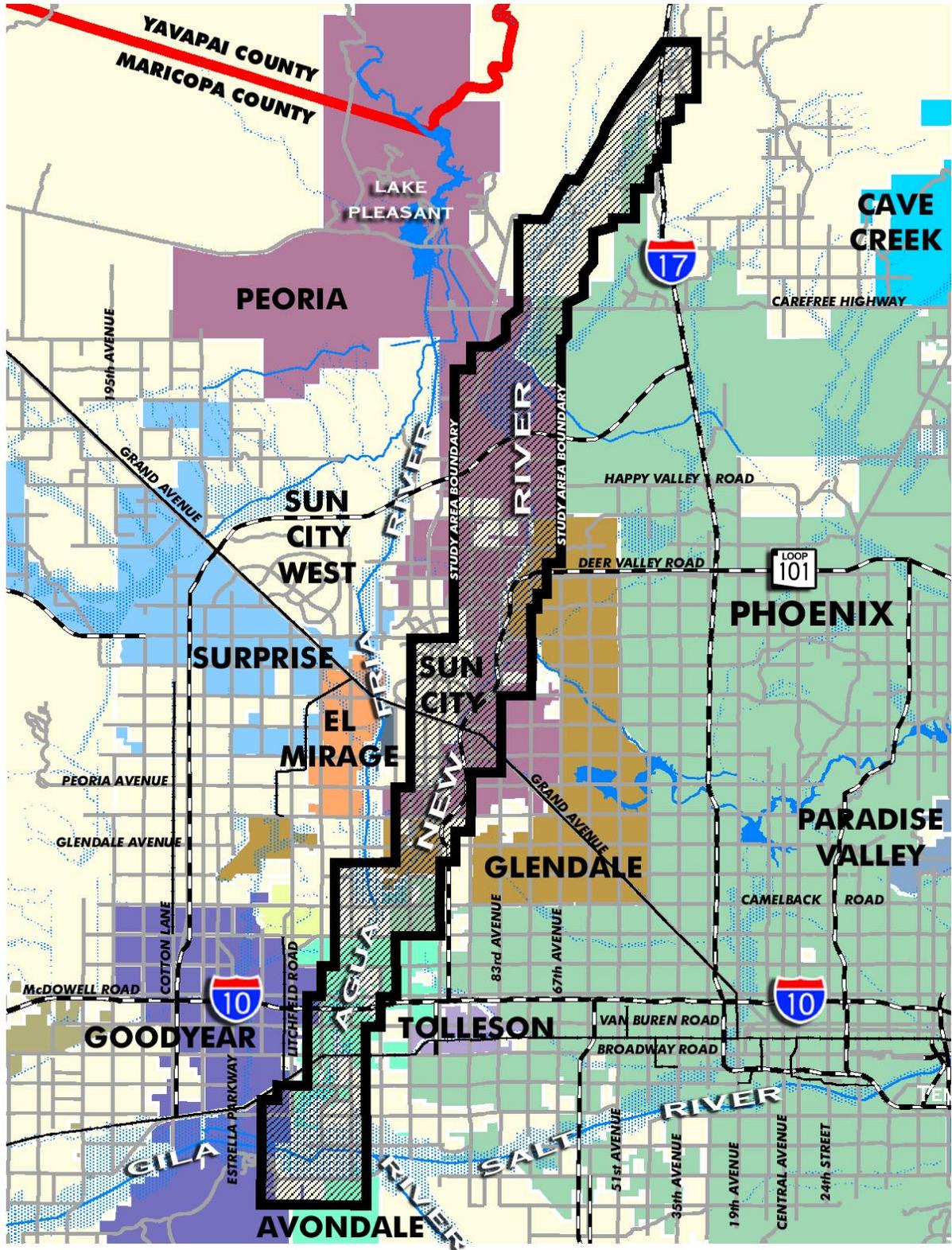
Overview – The New River and Lower Agua Fria Corridor

The New River and Lower Agua Fria Corridor represents a riparian river ecosystem that is common to the Sonoran Desert Region of Arizona. This corridor contains valuable geographic features and a rich diversity of plant and animal habitats, cultural and historic resources, and beautiful vistas. The New River and Lower Agua Fria Corridor is a planned 42-mile non-motorized system of urban and rural trails, stretching from the community of New River to the convergence of the Lower Agua Fria with the Gila River in Maricopa County, Arizona (See **Map 1, Project Study Area**).

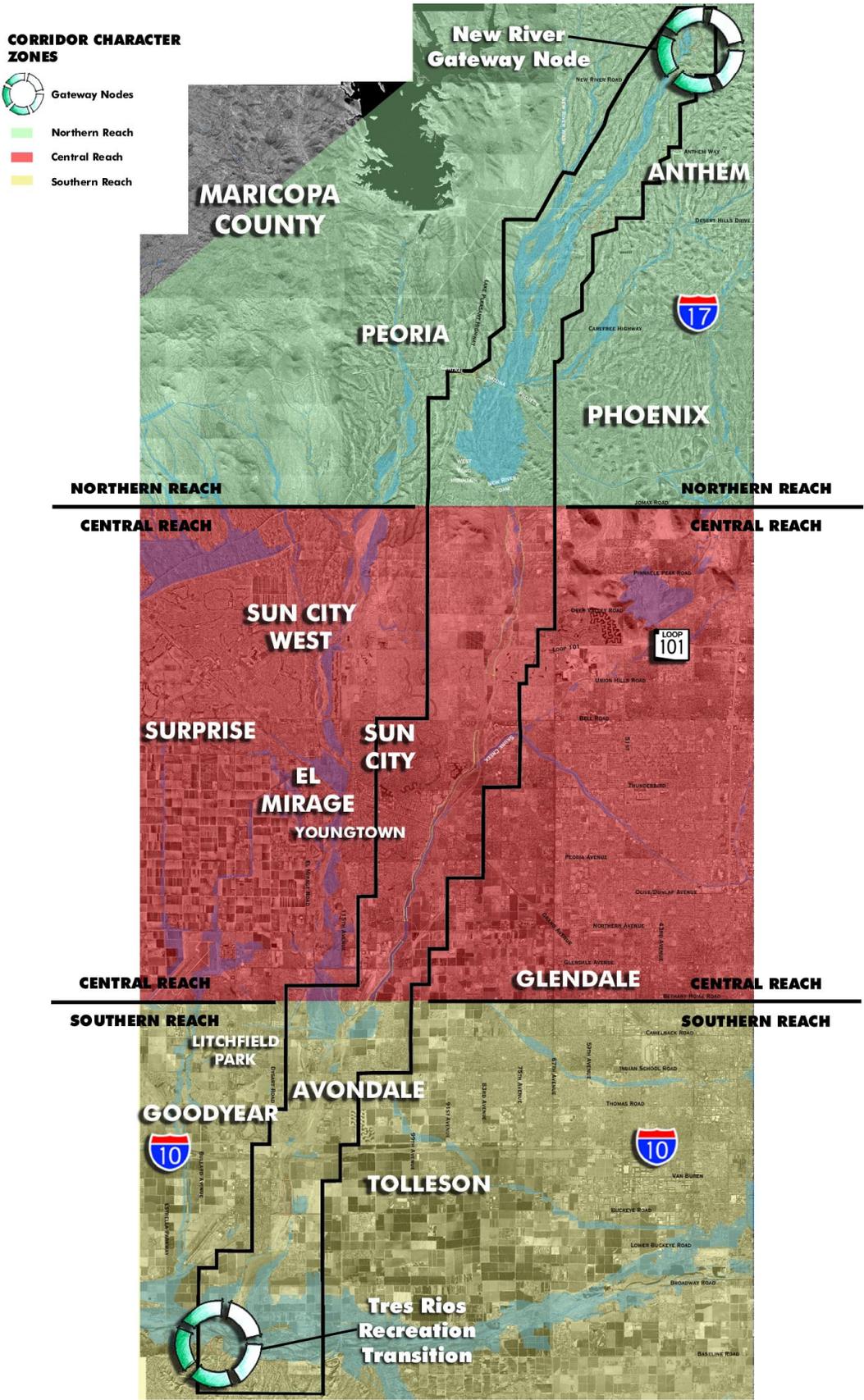
The West Valley New River and Lower Agua Fria River Corridor has been divided into three distinctively different primary river “reaches”. The landscape character of the Sonoran Desert riparian river qualities, urban and suburban development characteristics and type of uses anticipated help define the river reaches. The Northern Reach, estimated to be approximately 16.61 river miles, encompasses the area from the unincorporated community of New River, southwest to approximately one-mile north of the New River Dam. The Central Reach begins at the southern boundary of the Northern Reach, continues southwest approximately 15.14 river miles and ends roughly one-quarter mile north of Glendale Avenue. The Southern Reach includes the final third of the study area, from the southern Central Reach boundary, and terminates at the confluence of the Lower Agua Fria River with the Gila River, approximately 11.04 river miles. The entire river Corridor is estimated at 42.79 river miles. (See **Map 2, Corridor Character**).



Looking Downstream at the New River and Lower Agua Fria River



Map 1, Project Study Area



Map 2, Corridor Character

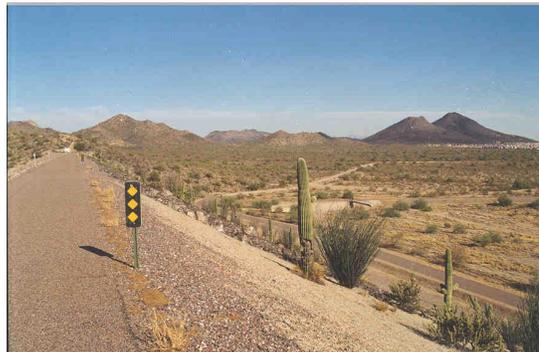
Purpose & Need

This West Valley Multi-Modal Transportation Corridor Plan is part of a multiphase undertaking conducted through the efforts of the Maricopa Association of Governments (MAG), in cooperation with the Flood Control District of Maricopa County (FCDMC). This study sets a precedent for an overall plan to be designed involving several communities, who will then have the responsibility for building their section of the Corridor. Funding for this phase of the project (Corridor Concept and Master Plan) is funded through the Arizona Department of Transportation's (ADOT) Transportation Enhancement (TE) funding program. This project represents the first time TE funds have been used to conduct a non-motorized transportation planning study. Following the completion of this study, each jurisdiction along the West Valley Corridor is encouraged to continue the process to design, build and implement each segment of the trail Corridor as funding becomes available.

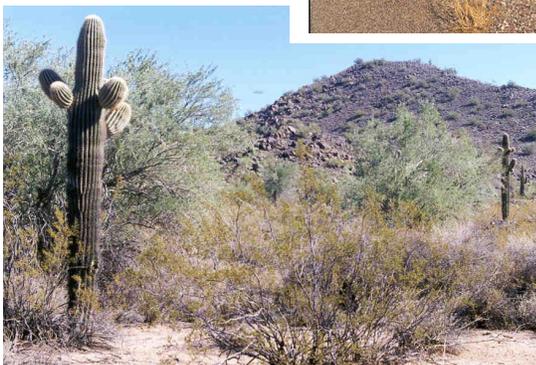
The principal purpose of the West Valley Multi-Modal Transportation Corridor Plan is to:

- a) identify a vision and a master plan for the implementation of a network of multi-modal trail types with the New River and Lower Agua Fria River Corridor and,
- b) define specific acquisition needs and implementation strategies for the development of the comprehensive trail system.

This network of trails is intended to expand upon the existing and planned river trail system in the region as outlined in the West Valley Recreation Corridor, and to connect with existing trail linkages and all major public lands in the West Valley. These non-motorized, shared-use trails provide the community multiple benefits such as alternative transportation routes, recreational opportunities, wildlife habitat preservations, open space protection and flood control.



Top left: Existing Trail Along the New River and Lower Agua Fria River; Bottom left: the Sonoran Desert Landscape; Bottom right: Cyclist Using a Pre-fabricated Bridge



Vision Statement

The New River & Lower Agua Fria Corridor represents a unique riparian ecosystem that is reflective of the Sonoran Desert Region of southern Arizona and Sonora, Mexico. This desert riparian system is a valuable geographic feature known for its native plants and animal habitats, cultural and historic resources, and visual qualities. Through the efforts of many individuals and West Valley communities, the future New River & Lower Agua Fria Corridor will include a 42-mile non-motorized system of trails along the New River & Lower Agua Fria. The trail system will link the community of New River and the cities of Avondale, Glendale, Peoria and Phoenix. The Corridor follows the New River southwest to the confluence of the Agua Fria River and the Gila River. When completed, the New River & Lower Agua Fria Corridor will be symbolic of humankind's respect for the River Corridor by conserving its natural resources and integrating an efficient system of shared-use trails for all users.

The New River and Lower Agua Fria Corridor shared-use trail will:

- Incorporate a regional system of trails designed to enhance the quality of life for all residents in the West Valley Rivers region.
- Provide a continuous and interconnected system of trails for the purpose of encouraging alternative modes of transportation and recreational opportunities.
- Respond to the natural river system, the flood control functions of the River, and the needs of the community.
- Establish a precedent to conserve the natural renewable resources along the West Valley Rivers Corridor.
- Provide educational and interpretive opportunities for the public on sensitive cultural resources, and plant and wildlife habitats that are unique to Sonoran Desert riparian areas.
- Conserve valuable riparian resources from adverse effects caused by rapid urban development in the West Valley.
- Enhancements of the visual appeal of the West Valley Rivers Corridor through a unified design that complements its natural elements.

Project Goals & Objectives

The overall goal of the West Valley Multi-Modal Transportation Corridor Plan is to establish a continuous river trail system along the 42-mile New River and Lower Agua Fria River (see **Map 3, The Master Plan**). Rivers, trails, and their adjacent parks have long been recognized for their environmental protection, recreation values and aesthetic qualities. River corridor trail systems can also enhance property values, increase tax revenues, mitigate impacts on the natural environment, reduce area motor vehicle traffic by providing an alternative transportation opportunity, and promote a local identity.

Regional planning and development of open space corridors can influence the design of the landscape and its integration with the community's development. The West Valley has a wealth of open space and historic features connected with the New River and Lower Agua Fria River. In order to address the nature of the Corridor and existing jurisdictional policies, goals and objectives were first formulated to plan the development for the Corridor. For the purposes of this project, a *goal* is defined as concise statement describing a condition to be achieved, but that does not describe specific action but a desired outcome. An *objective* is an achievable step towards a goal, where progress is measured. Each goal and its accompanying objectives identified for this project are listed below.

Goal #1 The New River and Lower Agua Fria River Corridor shall provide a shared-use, non-motorized trail to accommodate a wide range of user groups within the Corridor.

Objectives:

- *The Corridor design shall provide opportunities for all users by adhering to current trail design standards.*
- *The planning and design of the Corridor shall seek input from a range of user groups to ensure that the trail accommodates multiple modes of non-motorized transportation and as many recreational users as possible.*
- *The Corridor design process shall draw upon existing policies and goals previously established by communities along the Corridor to ensure that the project is consistent with each community's goals and objectives.*

Goal #2 The New River and Lower Agua Fria River Corridor shall provide a continuous, comfortable, efficient, uninterrupted trail system for non-motorized modes of transportation, and link destinations to the people who utilize them.

Objectives:

- *The Corridor planning and design shall identify major origin and destinations within the Corridor area and determine appropriate alternative alignments to ensure that linkages are provided.*
- *The Corridor planning and design will respond to existing and future transportation linkages, including connections to existing and future park-and-ride facilities, public transit service, local neighborhood pedestrian trails, and other multi-modal circulation systems.*
- *The Corridor project will identify a protected easement for the purpose of establishing public trail access, conserving open space and visual qualities, and protecting environmental and cultural resources along the Corridor.*

Goal #3 The New River and Lower Agua Fria River Corridor shall enhance access and mobility for all non-motorized, multi-modal transportation opportunities.

Objectives:

- *The shared-use path design shall be established by developing a hierarchy of trail design types to respond to multiple uses, landscape character zones and community needs.*
- *The continuous trail system shall provide a primary and secondary shared-use trail. The primary system shall respond to the urban character zones and include a minimum 12-foot wide hard surface facility; the secondary trails shall respond to the rural character zones and may be hard-packed decomposed granite or other suitable materials.*
- *The Corridor trail system shall, wherever feasible, include grade-separated intersections at major roadway crossings or other physical barriers to provide continuous trail access along the Corridor.*
- *The Corridor trail design shall incorporate safe design principles outlined in federal design guidelines and state and local bikeway and pedestrian guidelines, and current recognized design guidelines for equestrian needs.*

- *The Corridor shall be designed to accommodate all users, whenever possible, by incorporating the recognized Americans With Disabilities Act (ADA) design standards.*

Goal #4 The New River and Lower Agua Fria River Corridor shall exhibit a unique identity and celebrate the West Valley Rivers Corridor, individual communities along the Corridor, and the natural resources and landscape character within the Corridor.

Objectives:

- *The Corridor project shall include a public outreach campaign that explores a range of creative measures to solicit input from each community along the Corridor.*
- *The Corridor shall have a trail system graphic logo and trail signage element that responds to the individual communities, Maricopa Association of Governments (MAG), the Flood Control District of Maricopa County (FCDMC), and the natural and cultural features along the Corridor.*
- *The Corridor design shall demonstrate a respect for the natural riparian elements of the River Corridor by incorporating water conservation measures, protecting and enhancing habitat, and establishing an environmental education and interpretive element.*
- *The Corridor shall integrate non-structural flood control measures, whenever possible, to protect the existing landscape character.*

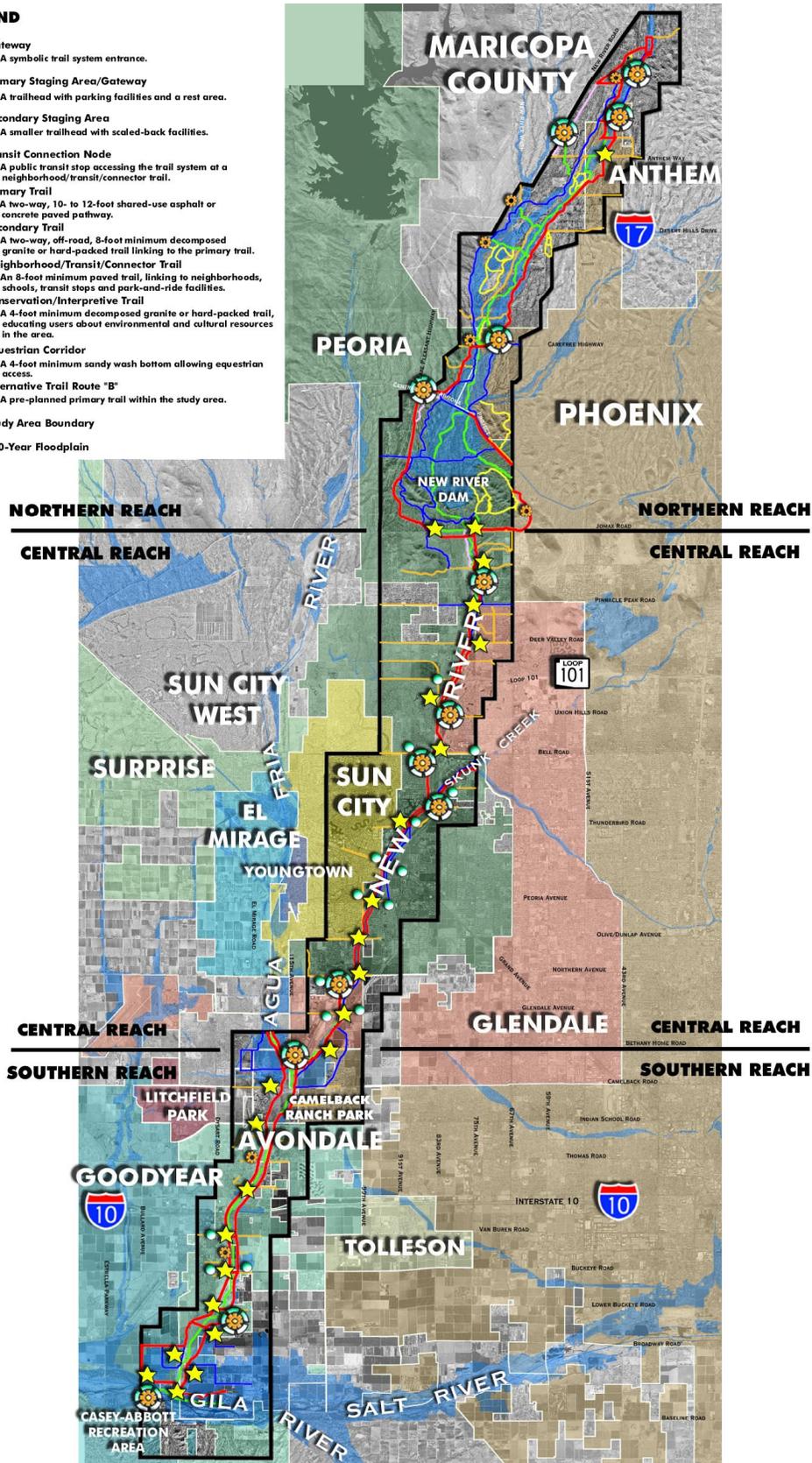
Goal #5 The New River and Lower Agua Fria River Corridor shall protect natural and cultural resources within the Corridor from the adverse effects of rapid urban development in the West Valley.

Objectives:

- *Individual communities and agencies along the Corridor are encouraged to adopt development review standards and design guidelines as tools to preserve corridor access and right-of-way easements required for the construction of a continuous trail along the Corridor.*
- *Ensure effective, ongoing dialogue between the various communities along the Corridor to move toward implementation of the New River and Agua Fria River Corridor project.*
- *Standards on setbacks, user access, site development orientation, and appropriate land uses for the New River and Agua Fria River Corridor shall be recommended to each jurisdiction along the Corridor.*

LEGEND

-  **Gateway**
- A symbolic trail system entrance.
-  **Primary Staging Area/Gateway**
- A trailhead with parking facilities and a rest area.
-  **Secondary Staging Area**
- A smaller trailhead with scaled-back facilities.
-  **Transit Connection Node**
- A public transit stop accessing the trail system at a neighborhood/transit/connector trail.
-  **Primary Trail**
- A two-way, 10- to 12-foot shared-use asphalt or concrete paved pathway.
-  **Secondary Trail**
- A two-way, off-road, 8-foot minimum decomposed granite or hard-packed trail linking to the primary trail.
-  **Neighborhood/Transit/Connector Trail**
- An 8-foot minimum paved trail, linking to neighborhoods, schools, transit stops and park-and-ride facilities.
-  **Conservation/Interpretive Trail**
- A 4-foot minimum decomposed granite or hard-packed trail, educating users about environmental and cultural resources in the area.
-  **Equestrian Corridor**
- A 4-foot minimum sandy wash bottom allowing equestrian access.
-  **Alternative Trail Route "B"**
- A pre-planned primary trail within the study area.
-  **Study Area Boundary**
-  **100-Year Floodplain**



Map 3, The Master Plan

TRAIL IMPLEMENTATION STRATEGIES

Legal Overview

The focus of the West Valley Multi-Modal Transportation Corridor Plan is to create an integrated and logical system of trails to meet the needs and preferences of trail users. The intent is to create a continuous shared-use primary trail designed for non-motorized transportation purposes—linking the entire New River and Lower Agua Fria River Corridor from the unincorporated community of New River to the confluence of the Lower Agua Fria and Gila Rivers. A range of other trail types within the Corridor support the planned primary trail facility. In the implementation of this Plan, land ownership is very important. The land in the West Valley is a mosaic of public and private lands, with overlays of various legal easements and rights-of-way. The proposed trails defined in the Plan criss-cross this mosaic of land ownership.

Trail users are trespassers without the legal right to be on the property that they are crossing. In order to implement this trail system jurisdictions need to obtain the legal right for public trail access to each parcel of land included in the formal trail system. The methods used to accomplish this will vary depending upon who owns the property and the current and proposed uses of the property.

As development has occurred in the metropolitan area, a number of popular traditional trails have been impacted or even closed due to landowners' security concerns, the desire for exclusiveness in new developments, and growing landowner and insurance industry reservations regarding liability risks. Trail users often believe that they should have the right of continued access to a trail that they have used and come to rely upon over a number of years. In these cases, a "prescriptive trail easement" across a landowners property is often desired by trail users. A "prescriptive trail easement" provides trail users the right to use a portion of another person's property, a right acquired by open, exclusive and continuous use for a statutory period.

This legal definition has a number of practical requirements that are impossible for most trail users to meet. One requirement is that the use of the trail cannot have been with the permission of the property owner and this non-permissive use must have been uninterrupted for at least ten years. A second requirement is the trail user's access to the trail must have been "exclusive;" it cannot have been shared with other, unidentified members of the public. Only rarely can these requirements be met, and even then the trail user's rights will probably have to be litigated in court. As a result, trail users cannot depend upon solely upon historical use of a trail to insure their continued access to that trail. Rather, the continued right of public access to a trail must be acquired to assure continued access.

Responsibility for Trail-Related Injuries

The planning process for the West Valley Recreation Corridor must consider where responsibility lies for injuries to persons or property that occur as a result of trail use. Private and governmental entities and persons involved in trail implementation and maintenance have ongoing trail management responsibilities. If these responsibilities are not met and persons or property are injured as a result, the injured parties may seek to recover liability damages from the landowner or trail manager.

The three entities with potential responsibility for safe trail use are the trail user, the landowner, and the entity that maintains the trail. The extent of responsibility, and therefore the potential liability for failure to meet that responsibility, can be established in three different ways: by contract, by statute, and by court-made law. In general, responsibility set by contract or agreement supercedes that set by statute, which in turn supercedes principles of responsibility under court-made or common law.

Common Law Responsibility

Court-made law provides guidance about the respective responsibilities of trail users, landowners and the trail operator. To the extent that the responsibilities for injuries in a particular situation have not been specified in contract or by statute, then there are certain rules that a court will apply in assigning responsibility and determining liability.

Trail users have the responsibility for using trails in a reasonable and lawful way to not cause harm to themselves or others, or to the property in and around the trail. If a trail user acts in an unreasonable manner causing injury to him/herself or others, the trail user may be found liable for those injuries under tort law. When a trail user engages in unpermitted behavior, such as detouring off a marked trail, he or she may also be responsible for any resulting injury. Even if the landowner or trail operator is found to be partly liable for injuries to a trail user, the trail user may be found to have also been at fault, thereby reducing his or her potential recovery.

Under common law, landowners have different responsibilities toward people who are trespassing on their land than to people who have permission to be there. With respect to trespassers, the landowner is obligated only to warn against known dangers, but not to take affirmative steps to make the property safe¹. The landowner's behavior in causing harm to the trespasser must be intentional or malicious rather than merely negligent.

For people invited on the property, however, the landowner is obligated to maintain his or her property in a reasonably safe condition. This standard of care is much more onerous to the landowner because it includes an obligation to discover and correct or warn of hazards which the landowner should reasonably foresee as endangering a trail user. It therefore imposes on the landowner an affirmative duty to guard against unsafe conditions. The landowner is not responsible, however, for conditions that are open and obvious and avoidable by the trail

¹ The only exception to this is the attractive nuisance doctrine which imposes on landowners the obligation to correct artificial conditions on the land that pose a risk of harm to young children that might be attracted onto the land by the harmful condition. This exception should not pose a problem for trails left essentially in their natural state because the risk of harm must come from an artificial condition.

user. Moreover, the landowner's obligations to the trail user change if the trail user trespasses onto adjoining land off the trail.

Governmental entities are held to these same standards of care when the public is invited to use public facilities, trails, and/or recreational areas. Therefore, these governmental entities assume responsibility for maintaining the trails under their jurisdiction in a reasonably safe condition for trail users. For the West Valley Multi-Modal Transportation Corridor Plan, a number of jurisdictions, including cities, Maricopa County and the Flood Control District of Maricopa County, or special agencies will be involved with trails both as a landowner for many of the trails, and as the overall trail operator. Good, consistent trail design and long-term maintenance will be essential to each jurisdiction's ability to meet its responsibilities and avoid unnecessary risks of liability to trail users and property owners.

Statutory Responsibility

A second way in which responsibility and potential liability may be determined is by statute. Arizona, along with most other states, has enacted a recreational users' liability statute². This statute is intended to encourage landowners to open their lands for recreational use by reducing their responsibility.

The recreational users liability statute changes the standard of care owed to recreational users so that it is the same as that owed to trespassers. That is, the landowner's responsibility is essentially limited to warning about known dangerous conditions. The landowner is also responsible for not maintaining an "attractive nuisance" that creates an unreasonable risk of injury to small children. Under the statute, the landowner does not owe an affirmative duty to recreational users to maintain the land in a safe condition.

This statute does not provide absolute immunity from liability, nor does it prevent a landowner from being sued. If the statute is found to apply to a particular situation, however, it will make it more difficult for the injured party to establish liability on the part of the landowner. Therefore the statute serves to reduce the risks associated with opening private land for public recreational use.

² A.R.S. §33-1551. Duty of owner, lessee or occupant of premises to recreational users; liability; definitions.

- A. An owner, lessee or occupant of premises does not:
 - 1. Owe any duty to a recreational user to keep the premises safe for such use.
 - 2. Extend any assurance to a recreational user through the act of giving permission to enter the premises that the premises are safe for such entry or use.
 - 3. Incur liability for any injury to persons or property caused by any act of a recreational user.
- B. As used in this section:
 - 1. "Premises" means agricultural, range, mining or forest lands, and any other similar lands which by agreement are made available to a recreational user, and any building or structure on such lands.
 - 2. "Recreational user" means a person to whom permission has been granted or implied without the payment of an admission fee, or other consideration to enter upon premises to hunt, fish, trap, camp, hike, ride, swim or engage in similar recreational pursuits. The purchase of a state hunting, trapping or fishing license is not the payment of an admission fee or other consideration as provided in this section.
- C. This section does not limit the liability which otherwise exists for maintaining an attractive nuisance, or for willful or malicious failure to guard or warn against a dangerous condition, use or activity.

There are questions about the applicability of the recreational users liability statute to a suburban/urban trail system. The statute defines the land covered by its protection as “agricultural, range, mining or forest lands, and any other similar lands that by agreement are made available to a recreational user....” Much of the property in the West Valley on which trails are proposed does not fall clearly within this definition. Although it could be argued that the West Valley Recreation Corridor is addressed by the term “any other similar lands,” it will be up to a court to make that determination. This lack of clarity could be resolved if the Legislature amended the statute to make it clear that it applies to a suburban/urban trail system and to make it explicitly apply to public as well as private landowners and easement holders.

Contractual Responsibility

Contracts can be used to clarify responsibilities and liabilities of the participating parties. For example, one party to the contract can agree to hold the other party harmless from liability under specified conditions. This kind of “indemnity agreement” shifts responsibility from one party to another as part of a negotiated contract. This approach is perhaps easiest to understand by a comparison to an insurance contract. With a homeowner’s liability policy, for example, the insurance company agrees to assume responsibility for injuries to visitors to one’s home even if such injuries were caused by the owner’s negligence. As long as the conditions of the policy are met, if the homeowner is found to be liable, the insurance company will pay the injured person.

The cost of an insurance contract is based, among other things, on an assessment of the risks for which the insurance company has assumed responsibility. If insured property is opened up for public trail use, the insurance company is likely to be concerned about increased liability exposure and to refuse coverage for trail-related injuries. As a result, in order for a private landowner to agree to deed a trail easement across his or her property to the county (or other agency), it may be necessary for the responsible government agency to agree to hold that landowner harmless from liability for trail-related injuries. In that case the responsible government agency would be assuming responsibility for trail-related injuries occurring on the landowner’s property.

Contracts may also be used to shift responsibility to the trail user in certain private trail situations. Where access to a trail is closely regulated, a trail user can be required to sign a waiver agreement in which he or she agrees to assume responsibility for any injuries occurring on the trail. In a public trail situation, however, that kind of waiver would neither be feasible or advisable. A public trail facility is presumed to be under the management and operation of a given public entity, thereby suggesting a level of responsibility and obligation to properly maintain and operate the trail. Where as such measures as ‘warning’ signs or trail use restriction may be in order for public use facilities, a transfer of responsibility by ‘contract’ may not limit the liability of a public agency under today’s liability and tort law.

Note: This summary provides an overview of the legal conditions and considerations for trail development. There is no particular solutions or preferred approach.

Local Jurisdiction & Agency Roles

There are a number of implementation strategies to consider when developing a regional trail system such as the West Valley Recreation Corridor. The type of method(s) that should be considered in implementing a particular trail segment (see **Map 4, Trail Segments Map**) will vary depending upon the status of the land in question and who governs it. In some instances, the best available implementation method will be one involving a legal agreement to permit trail use. The specific conditions of the agreement will vary depending upon the status and wishes of the contracting parties. Other strategies may include defining specific funding mechanisms and methods to design, acquire land, and construct trail improvements.

The most critical aspects of developing and implementing a trail system is to plan for legal access of trail users along the Corridor and the formal dedication of rights-of-way or legal easements to ensure the long term legal access of trails users. The following discussion outlines several different strategies that can be applied on individual cases for any number of trail segments within the West Valley Corridor. **Appendix A, Implementation Strategies Action Plan Matrix**, summarizes the various methods of trail implementation that may be used for each segment of the New River and Lower Agua Fria River Corridor.

Local jurisdictions and agencies, through their implementation authority, have the final say in whether a trail project such as the West Valley Multi-Modal Transportation Corridor Plan will achieve fruition. Local jurisdictional support for a project such as the West Valley Multi-Modal Transportation Corridor Plan is essential from the onset. Each jurisdiction and governing agency along the West Valley Corridor has the ability to apply a variety of creative planning procedures and funding mechanisms to ensure that the regional trail system and its amenities are completed. Various means for project implementation by such agencies are described below.

Long Range General and Area-Specific Plans

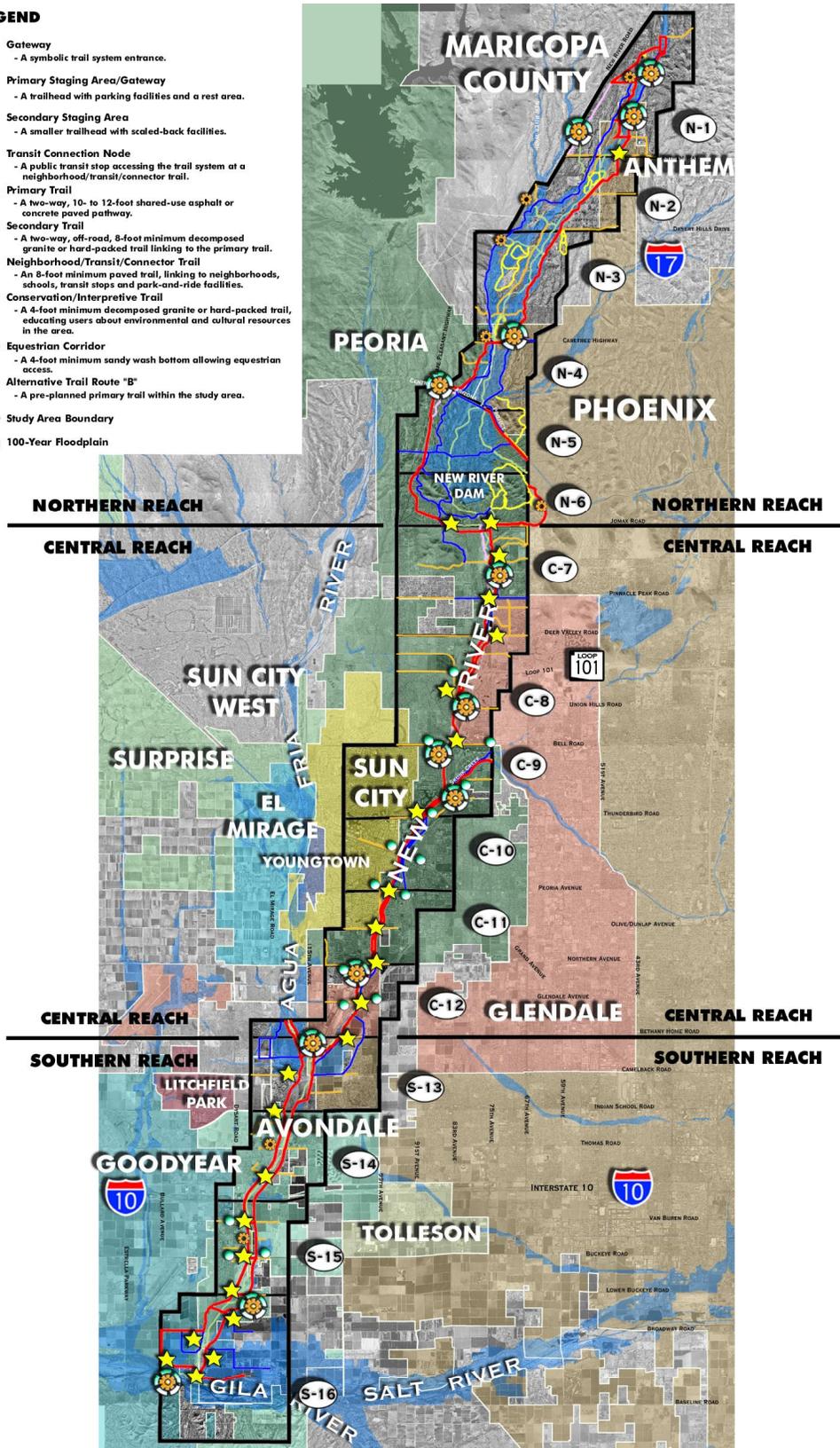
The ultimate completion of the entire 42-mile West Valley New River and Lower Agua Fria River Corridor Trail Project may take years before it is completed in full. Based on the budget constraints and other local needs of the affected jurisdictions within the West Valley, this comprehensive trail project will require full commitment and a series of project champions before it may become a reality. It is therefore imperative that the West Valley Multi-Modal Transportation Corridor Plan be integrated into each community's general and related area-specific plans of municipalities, so that the Plan may be realized in the future.

Inclusion Into Capital Improvement Programs

In order for the various segments of the trail Corridor to be developed, adequate funding must be available. Since plans for trail design and construction may take several years, it is necessary to set-aside funding for implementation within each communities capital improvement programs (CIP's). Including plans for trail development within CIP's will assist jurisdictions in budgeting accordingly for the provision of trail facilities in the short-term, as well insure a degree of commitment and prioritization for the implementation of the New River and Lower Agua Fria River trail system.

LEGEND

-  **Gateway**
- A symbolic trail system entrance.
-  **Primary Staging Area/Gateway**
- A trailhead with parking facilities and a rest area.
-  **Secondary Staging Area**
- A smaller trailhead with scaled-back facilities.
-  **Transit Connection Node**
- A public transit stop accessing the trail system at a neighborhood/transit/connector trail.
-  **Primary Trail**
- A two-way, 10- to 12-foot shared-use asphalt or concrete paved pathway.
-  **Secondary Trail**
- A two-way, off-road, 8-foot minimum decomposed granite or hard-packed trail linking to the primary trail.
-  **Neighborhood/Transit/Connector Trail**
- An 8-foot minimum paved trail, linking to neighborhoods, schools, transit stops and park-and-ride facilities.
-  **Conservation/Interpretive Trail**
- A 4-foot minimum decomposed granite or hard-packed trail, educating users about environmental and cultural resources in the area.
-  **Equestrian Corridor**
- A 4-foot minimum sandy wash bottom allowing equestrian access.
-  **Alternative Trail Route "B"**
- A pre-planned primary trail within the study area.
-  **Study Area Boundary**
-  **100-Year Floodplain**



Map 4, Trail Segments Map

Governmental Resolutions and Intergovernmental Agreements (IGAs)

Governmental Resolutions are an extremely important initial step in the local jurisdictional process to recognize and support the West Valley Multi-Modal Corridor Plan. Each governing body within the West Valley Corridor should formally acknowledge the need for and the importance of developing a formal program and express a formal commitment to work toward the implementation of the West Valley Multi-Modal Corridor. The resolution is a symbolic effort on the part of the governing body to support the implementation of the trail system in the West Valley, and to support the operational and long-term maintenance programs required to ensure the safety of all trail users.

Intergovernmental agreements (IGAs) permit one branch or agency of government to contract with another and allow for the necessary coordination among various jurisdictions in the West Valley. It is a type of agreement that allows governmental bodies to transfer or share responsibilities for achieving common goals and mandates. IGAs may be important in implementing the trail system because there are many different jurisdictions operating in the West Valley in support of the West Valley Recreation Corridor. IGAs may also be used to outline county management and operational responsibilities of a trail located on land owned by another local jurisdiction.

In implementing the trail system, interagency agreements probably will be needed between Maricopa County Parks and Recreation and other county departments such as Transportation and the Flood Control District. These interagency agreements could specify the respective rights and responsibilities of different county departments with respect to trail use and management.

County and municipally owned lands may be available for trails if existing and planned uses of the land are compatible with trail use and there are no legal impediments. Where a recommended trail corridor is owned by a local jurisdiction, an intergovernmental agreement between the County and that local jurisdiction could be used to provide for coordinated operational and maintenance needs associated with the trail. For County lands held by agencies other than the Maricopa County Parks and Recreation Department, interagency agreements could be useful tools to provide for operation and maintenance of the trail by the Parks and Recreation Department.

Designation of Existing Rights-of-Way for Trails

Rights-of-way that are already in public ownership, whether as a dedicated easement or as land owned by a governmental jurisdiction, represent important opportunities for trail implementation. Rights-of-way held by the Flood Control District, various local jurisdictions or other land management agencies within the Corridor, may already be designated as transportation, utility and/or flood control purposes. These rights-of-way corridors are often well suited to accommodate trail users.

To the extent possible, many existing rights-of-way already held in public ownership can be converted to accommodate public trail access with necessary improvements for trail enhancements. Rights-of-way corridors, located adjacent to the primary trail may serve as trail linkages, neighborhood trail connectors, and secondary trail opportunities. The primary implementation issues related to the conversion of existing public rights-of-way may relate to trail design, management and operation and safety concerns along the trail.

Road Rights-of-Way

While roadways may be used by pedestrians, bicyclists and/or equestrians, current regulations do not confer any preferred status on such uses. Cooperation with transportation planners is essential in identifying, enhancing and preserving shared-use trail opportunities adjacent to or along roadways, at bridge crossings, and at intersections.

Hikers, equestrians and bicyclists are authorized by state law to use roads and road rights-of-way³, with the exception of limited-access highways such as I-17 and I-10 in the urban metropolitan area. Therefore, special ordinances or policies are not required to permit access to road rights-of-way by trail users. In almost all cases, roads and road rights-of-way are owned by governmental entities and may be included within the trail system. Even in those few instances where a road right-of-way is established by easement across private property rather than outright governmental ownership, the authorized uses of such an easement would necessarily include use by hikers, equestrians and bicyclists.

Therefore, the issues to be addressed in including road rights-of-way in a trail system are primarily spatial, design and safety related issues. The width of rights-of-way can vary dramatically. A typical right-of-way for a two lane county road is 60 feet, with 22 to 24 feet of pavement, 8 feet for a distressed vehicle lane and an additional 12 feet making up a 20-foot "clear zone." The clear zone can contain signs, buried utilities and landscaping features. Although these components need not be incompatible with use of the clear zone by hikers and equestrians, certain landscaping features could impede passage, particularly by equestrians.

Maricopa County and each local jurisdiction along the West Valley Multi-Modal Corridor should adopt public roads ordinances that set specific standards and procedures for implementing future elements in the regional transportation plan. These ordinances will provide for specific consideration of pedestrian, equestrian and bicycle uses of road rights-of-way in the design and implementation of road projects. To the extent that specific road projects should include pedestrian, bicycle and/or trail improvements, each local ordinance will help insure that trail needs are considered in roadway design.

Many of the trails on or adjacent to road rights-of-way identified in this plan, however, occur along existing roads for which no major improvements are planned. For these roads it will be necessary to determine if there are existing design or spatial limitations that mitigate against their inclusion in a formal trail system. For example, such conditions as dangerous intersections, steeply sloping shoulders and impaired visibility associated with certain roads might make them unsuitable for use by bicyclists, equestrians or hikers.

Although hikers, equestrians and bicyclists may have the legal right to use most roadways, liability concerns may prevent jurisdictions from including unsuitable road rights-of-way in the designated trail system. Roadways that are too narrow or are poorly designed for safe equestrian, pedestrian and/or bicycle use should not be included in a formal trail system that provides official sanction for such uses.

³ A.R.S.§28-796 provides that pedestrians are to use sidewalks if they are available and if not to walk on the left side of the roadway or its shoulder facing traffic. A.R.S.§28-625 provides that every person riding an animal upon a roadway is subject to the same general rights and duties as drivers of motorized vehicles. A.R.S.§28-812 provides that bicyclists are subject to the same rights and duties, with certain exceptions, as drivers of motorized vehicles.

It is also important to note the primary purpose of all roadways is for use by motorized vehicles. Trail user needs are at best secondary to the demands of motorized vehicles. Therefore, even sanctioned trails in road rights-of-way may be impaired or even lost during road improvements. For that reason it is important that design elements permitting continued trail use be developed and incorporated in connection with road construction. For example, equestrian needs can be accommodated in the design of road intersections with the use of such features as culverts large enough to accommodate horses. Landscaping elements can be positioned to provide buffers for pedestrians and equestrians without impeding their forward movement.

Flood Control Rights-of-Way

Most of the trails identified in the West Valley Multi-Modal Corridor Plan are in ephemeral river channels or washes that are dry most of the year. Because of flood hazards, washes meeting certain specifications may be regulated as floodways subject to restrictions on use and development.

Public use of floodways for trails will require either public ownership of the floodway or some kind of agreement with the private property owner. A number of floodways are in public ownership because the Flood Control District of Maricopa County has been actively acquiring flood control rights-of-way for a number of years. These have been acquired both as dedications in connection with subdivision and rezoning approval and through outright purchase. Floodways owned by the Flood Control District could



Flood Control District Maintenance Road Along the New River and Lower Agua Fria River

be made available for trail use subject to safety concerns or other conflicting uses associated with particular parcels. It should be noted that the primary purpose of such floodways is for flood control and that trail use must be subordinate to that purpose.

Certain flood control rights-of-way are also held by the Flood Control District as easements across private property. Permissible uses of these rights-of-way would have to be determined on a case-by-case basis from the language of the document creating the easement. In most cases, existing flood control easements will probably not encompass public trail access as a permitted use. In those instances, new or expanded easements could be acquired from the landowner or some other method employed to allow public access for trail purposes. As new flood control easements are acquired by the county it will be important that public trail access be included as a permitted use wherever possible. As a part of the West Valley Multi-Modal Corridor Plan, existing flood control easement areas currently used for maintenance purposes

would be opened for access to the general public for trail uses along the New River and Lower Agua Fria River Corridor.

Utility Rights-of-Way

The rights-of-way for gas and electric utility lines or water providers such as the Central Arizona Project Canal (CAP) are similar to road and flood control rights-of-way since they are linear corridors that may offer important trail opportunities. However, because they are in private ownership, the methods for implementing trails in these rights-of-way will differ from those discussed above.

Utility rights-of-way are usually easements acquired by a utility company or water service provider to construct, operate, inspect and repair gas, electric lines, canals and associated facilities. In some cases utility rights-of-way are owned in fee by the utility company. The type of ownership of these utility rights-of-way will affect the ease with which they can be implemented as trails.

Creating trails for public use on utility rights-of-way generally does not present an inherent conflict. Utility lines are usually buried or high overhead leaving the area within the right-of-way, often including a maintenance road, for use by hikers, equestrians and bicyclists most of the time. The right-of-way along open canals (i.e. CAP) may have specific constraints that require special considerations. However, these circumstances can be addressed to provide for safe trail user access. In other communities in Arizona and other western States, many local utility representatives have become generally supportive of trails within their rights-of-way, assuming proper signage and maintenance by the appropriate jurisdiction. For those utility rights-of-way owned in fee, the appropriate jurisdiction will have to work with the utility company in implementing the trail.

However, for utility rights-of-way that are easements, the implementation process can be more cumbersome because underlying property owners will have to be involved. Utility easements are usually not written to include public trail access as a permitted use of the easement. Therefore, in order to implement a trail in a utility easement, a new or additional grant from the property owner is necessary. To further complicate the situation, there are likely to be a number of different easements and property owners along a stretch of utility right-of-way.

These property owners, and utility easement holders, will have the same concerns about risks of liability as other landowners. The implementing government agency may have to provide some form of protection from liability for these landowners and utility easement holders to acquire trail easements. In the case of utility rights-of-way, the implementing government agency will not have the option of purchasing fee ownership in lieu of indemnifying the property owners.

In some cases, it may be easier for the responsible agency to negotiate a license agreement with the property owner of a utility right-of-way rather than to acquire a trail easement. As discussed below, licenses are usually discouraged as a method of implementing trails because of their fragile and temporary nature. However, in the case of a utility corridor that is not suitable for development or other uses not compatible with trail use, a license agreement may be appropriate.

The CAP right-of-way represents a very special opportunity for developing a trail in a utility corridor. In Pima County, Arizona, the County and the United States Bureau of Reclamation have already entered into an agreement for a county trail along a 50-mile stretch of the Central Arizona Project's Tucson Aqueduct. Pima County and the Bureau of Reclamation have agreed to jointly prepare a development and management plan for the trail. In this case, the County will be responsible for constructing, operating and maintaining the trail, although it is anticipated that there will be some federal cost sharing in construction of the trail. In the MAG region, Maricopa County Department of Transportation is leading a study with multiple partners to assess the feasibility of trail use along the CAP.

In this case, although the trail agreement between Pima County and the United States is an important first step, it in no way assures that the funds will ever be appropriated and used to construct and operate the ambitious trail contemplated in the agreement. As an interim measure, it has been proposed that the county investigate the possibility of obtaining the Bureau of Reclamation's permission for trail users to use the reserved trail right-of-way along the Tucson Aqueduct until such time as the actual trail is constructed. Similar approaches may be feasible along the New River where the Central Arizona Project Canal traverses the West Valley Recreation Corridor Plan.

Dedication as a Part of Rezoning

As shown in **Appendix A**, this implementation method is available only for land for which rezoning or subdivision approval is sought from the county or other local jurisdictions by a private landowner.⁴ If potential trails are identified on such land, dedication of trails during the subdivision or rezoning process is a very desirable implementation method because it does not require the expenditure of public funds for trail acquisition.

The most common use of the method occurs when a developer is seeking rezoning for a large tract of undeveloped land. Rezoning dedication of trails may also be used in situations where land has already been developed but one or more of the landowners seeks subdivision approval or rezoning as a higher density. In the latter situation, the parcels of land will be smaller and effective use of this method more complicated.

Under applicable law, Maricopa County and local jurisdictions have authority to require dedication of rights-of-way from developers for public trails.⁵ In order to utilize this authority most effectively, the jurisdictions need a local ordinance providing for proposed trail placement. A model ordinance of this type is included in the MAG Regional Off-Street System (ROSS) Plan. As a practical matter, the jurisdictions must also have staff knowledgeable about trail requirements and a governing board committed to implementation of a trail system.

Each community's planning process is critical to the successful implementation of the West Valley Recreation Corridor. The New River and Lower Agua Fria River Master Plan provides the information necessary for trails to be included in area plans and specific plans requiring rezoning. The Plan will also help ensure that planning staff are able to identify trails that need to be acquired at the time new subdivisions and rezoning are approved. In the past, a

⁴ While some cities can require dedication of trails by public landowners, the county cannot.

⁵ This dedication may be in fee simple or it may be in the form of a trail easement. For the reasons discussed in sanctions 8.3.3 and 8.3.4 below, fee simple dedication is preferable to dedication of an easement.

number of trail opportunities have been lost because they were not identified in any county or city ordinance or plan. Even those trail opportunities identified in previous trail master plans have sometimes been overlooked or ignored in connection with related rezoning and subdivision approval processes. Both a comprehensive trail ordinance and the resolve to actually implement it will be required to avoid those problems in the future.

However, just because a trail is identified in the county or city trail ordinance does not automatically mean that a developer can be required to dedicate a portion of land to the jurisdiction's trail system. Constitutional limits are imposed on the power of government to make regulatory exaction. The takings clause of the Fifth Amendment to the United States Constitution prohibits the taking of private property for public use without just compensation. This means that if a land-use regulation or required exaction is too extreme it may be found by the court to be a taking for which the public must pay the landowner.

Several factors are considered by courts in determining whether a regulatory exaction is a justified exercise of the government's police powers or is instead a taking of private property for which compensation must be paid. The court will first look to whether the exaction substantially advances a legitimate public purpose. The provision of shared-use trails could be viewed as a legitimate public purpose, although not as compelling a public purpose as flood control or roads. Whether the legitimate purpose of public trail access is substantially advanced will depend upon the particular location and characteristics of the trail.

Another important factor considered by the courts is whether the rezoning or development for which approval is sought will create a burden commensurate with the exaction being imposed. In other words, the adverse effects likely to be created by the proposed development, such as loss of trail access and increased traffic on local trails, must be logically related to what the developer is being required to provide in the form of dedicated trails.

In most cases, if a jurisdiction requires a developer to dedicate a public trail in connection with approving a new subdivision or rezoning, a "takings" claim will not arise. Developers are anxious to do what is necessary, within reason, to gain approval for their projects. Since many trails will be in washes already set-aside for flood control purposes, the additional dedication for public trail access within the corridor will not be particularly burdensome. Moreover, as more trails are successfully implemented in the region, the requirement for additional trails in new developments will hopefully come to be regarded as a development amenity rather than as an imposition. Nevertheless, it is important to bear in mind that the jurisdiction's ability to require the dedication of public trails from land developers is not unlimited.

Acquisition of Fee Simple Ownership

Trail acquisition methods will vary depending upon who owns the land. Most of the proposed trails in this Plan are located along property managed or owned by the Flood Control District of Maricopa County or other public jurisdictional lands. Other trail segments are located on private property and will have to be acquired from those individual landowners. But even where the proposed trail property is already governmentally owned, the right of public trail access will depend upon which governmental entity owns it.

State trust lands, for example, must be regarded as essentially the same as private property even though they are under state control. That is because the state holds these lands in trust for the benefit of certain named public beneficiaries such as the common schools, the prisons,

and the state universities. The Arizona State Land Department is required under state and federal law to sell or lease those lands at public auction for no less than fair market value. That means that the State Land Department cannot manage trust lands to benefit the public for other purposes, but instead must achieve the highest monetary return for the trust beneficiaries. Therefore, in implementing trails on state trust lands, the county or a local jurisdiction may be required to provide adequate compensation to the trust for the use of the land just as it would have to with a private landowner. The jurisdiction will also have to deal with conflicts that may arise between trail use on trust land it purchases and the adjoining trust land for which there are grazing, mineral, or commercial leases in effect.

Outright county or city ownership is preferable to other means of obtaining public access for trail use. Not only does it give the jurisdiction the greatest measure of control over the trail, it is also the best way to ensure continued public access into the future. As discussed above, dedication of a trail during rezoning is a preferred way for the county or city to obtain fee ownership of trails, but it is available only where the landowner is seeking a rezoning. Donation is another cost effective means for the jurisdiction to acquire land for trails if there is a landowner desiring to donate property to the local entity for trail use. In most instances, however, acquisition of land for trails will have to be done by purchase, exchange or condemnation by the local jurisdiction.

Land Purchase

There is no question that Maricopa County or a local city is authorized to expend public monies for the acquisition of trails. A.R.S.§11-932 authorizes counties to purchase, or enter into contracts to purchase real property for public park purposes, including trails. The county is also authorized to purchase land for the related purposes of open space preservation and flood control management.

The multi-purpose nature of many of the trails identified in the West Valley Recreation Corridor will be important to the county's ability to purchase them. Although the county may expend general funds or levy taxes for the acquisition and maintenance of parks, there are many other needs and agencies vying for those county dollars. Therefore, in many cases it may be easier to include a trail as a secondary use of land purchased for the primary purpose of flood control or open space acquisitions.

Land Exchange

Land exchanges involve trading land of equivalent appraised values. Maricopa County is authorized by A.R.S.§11-251(44) to acquire land for public purposes, including trails, by exchange without public auction. Land exchanges usually occur between different governmental entities, although the county may also exchange with a private property owner.

The primary advantage of land exchanges is that they do not require the outlay of money. With the scarcity of public recreation dollars, it may be easier for the county to trade land it owns but does not currently need that to purchase land for a trail. Once the exchange is accomplished, the trail is in county ownership just as if it had been purchased.

There will be difficult logistical problems with such land exchanges, however. The county will need to be able to offer to the landowner property of interest. Moreover, that property will have to be of equivalent value to the parcel sought for the trail. Because the amount of land needed for trails is not large, and is generally not developable anyway, such exchanges will

probably not work for small property owners. A land exchange may provide a good solution, however, where the county is seeking to acquire a large stretch of trail from a single landowner.

Condemnation

Jurisdictions have the authority to acquire public parks, including trails, through the exercise of its power of eminent domain. It is very unlikely, however, that a jurisdiction will choose to condemn land for a trail except under the most compelling circumstances. In order to condemn land for a trail a jurisdiction would need to file a condemnation action in court, and then pay the landowner what is determined to be the fair market value of that land.

As with any litigation, there is a certain amount of uncertainty associated with condemnation actions. The final amount of the judgment may be higher than anticipated, or the costs of litigation may be high if the landowner chooses to put up a strong defense. Moreover, if the public perceives that aggressive tactics are being used by a jurisdiction in acquiring trails, public support for the trail program may diminish.

Condemnation may be an appropriate acquisition method of last resort if a particular trail is very important to the overall trail system and cannot be acquired in any other satisfactory way. If this is the case, the jurisdiction must be prepared to document the existence of a comprehensive planning effort to support the trails program and subsequent property condemnation action.

Trail and Conservation Easements

Land ownership may be viewed as a bundle of legal rights. A landowner can sell or donate the whole bundle, or only one or more of those rights, such as the right to run a utility line across the land, the right to mine subsurface minerals, or the right to cross the property to gain access to adjoining property. In order to relinquish certain rights while retaining ownership, a landowner can deed an easement. The terms of each legal document creating an easement specify exactly what the landowner gives away and what he or she receives in return. Easements are granted by recording the easement document with the County Recorder. The title to the land is not affected by the development of the easement agreement.

Trail easements provide a way to legally cross the land of another for trail purposes. The land remains in private ownership but trail access is assured. The terms of the easement document would specify who is permitted to use the trail and for what purposes. A trail easement acquired by the county, for instance, would have to be for the benefit of the public, and not just certain individuals. The county could limit access to the trail to certain kinds of users. Trail easements can be acquired by a jurisdiction as an exaction in connection with subdivision or rezoning approval. Trail easements can also be acquired by a jurisdiction through purchase or condemnation, in the same way that a jurisdiction can acquire land for trails in fee simple.

Conservation easements are a special kind of easement authorized by state law to preserve land for conservation purposes including public outdoor recreation. According to the law, Conservation easements must be granted to a governmental entity, charitable corporation or trust involved in land conservation. Because conservation easements must be created voluntarily, they cannot be acquired through eminent domain or required as an exaction in

connection with the subdivision or rezoning approval process. Conservation easements are generally donated rather than purchased, with certain tax benefits accruing to the donor.

The main advantage of trail and conservation easements is that they should be less costly to acquire than fee ownership of the land. However, because these kinds of easements have not been widely used, particularly in Arizona, there is considerable uncertainty and difference of opinion regarding how they are to be valued. In principle, the price of an easement should



be the difference between fair market value of the land unrestricted and the value of the land subject to the restriction set forth in the easement.

Trail easements also offer the advantage of land remaining in private ownership, leaving it on the tax rolls, and keeping it available for non-conflicting private uses.

Trail Easements Provide A Means for Public Access to Trails on Private Property

Easements are very flexible because each can be created based

on particular circumstances. In certain subdivisions or planned communities, for example, when a trail is part of a larger common recreational area, a trail easement could allow for public access to the trail while the recreational area stays in private ownership.

Whatever the fiscal or other advantages associated with easements, the determining factor in whether trail easements will be a viable method for a jurisdiction to acquire trails will probably be landowner liability concerns. Landowners asked to grant a trail easement across their property for use by the public generally want assurances that they will not be held liable for injuries to trail users. The state's recreational user liability statute⁶ provides some protection for private property owners opening their lands for public recreation. But that protection is not absolute, and there are questions about how the courts will actually apply the statute.

Unless a jurisdiction is willing to include a hold harmless provision in trail and conservation easements, landowners will probably be unwilling to accept the risk of allowing the public to cross their property. In these cases, a jurisdiction will need to weigh the costs of indemnifying landowners against the savings associated with acquiring an easement rather than fee ownership of a desired trail.

⁶ A.R.S. §33-1551. This statute is discussed above in section 8.2.2 on responsibilities for trail-related injuries.

Trail Use Agreements

In some instances, the best available implementation method will be one involving a legal agreement to permit trail use. The specific conditions of the agreement will vary depending upon the status and wishes of the contracting parties. Agreements implementing trails on land owned by governmental entities will probably take the form of an intergovernmental or interagency agreement although lease and license agreements may also be used. Agreements with private landowners to allow public trail access can be in the form of a license or a lease.

License Agreements

In the case of trails, a license agreement is a simple agreement with the landowner that provides permission to use a trail on his or her land. The terms of the license are specified in the agreement. The terms may provide permission for trail use by the public at large, but more commonly, they are limited to only specified persons (licensees). Licenses can be written or oral and they are revocable at any time at the will of the landowner (licensor). Unlike easements, licenses do not effect rights in land, and they are not recorded.

The “revoke at will” nature of licenses makes them a disfavored means to implement trails. Trail planners are interested in implementation methods that assure continued availability of the trail into the future. A license that can be revoked at any time does not provide a firm basis for planning or making investments in a trail system.

Nevertheless, there may be certain instances in which a license is the only, or the most appropriate, method for implementing a trail.⁷ License agreements may provide a “foot in the door” to gaining the confidence and cooperation of a reluctant landowner. Initial implementation of a trail under a license agreement could be viewed as a trial period in which the trail would have to prove its merits. Successful operation of the trail during this trial period would then encourage the landowner and his or her neighbors to cooperate in making access to the trail permanent. It certainly could be easier for a jurisdiction to get a landowner to agree to a license that he or she can revoke at any time than to agree to sell the land or an easement across it.

Leases

A lease is a transfer to another of the temporary possession or use of the land, usually in return for rent or some other compensation. Unlike a license, it is not revocable except by the terms specified in the lease agreement, which must be in writing. The term of a lease is usually for at least one year, and it may or may not be renewable. Leases may endure for as long as 99 years.

The county is authorized by A.R.S.§11-932 to lease land for public parks⁸ and to extend public funds for improvements in leased parks. There may be certain situations in which a landowner would be willing to lease land to the county for a trail, but would be unwilling to permanently transfer rights in the land.

⁷ License agreements are not used by the State Land Department in its management of state trust land.

⁸ A “public park” is defined in A.R.S.§11-931 as “a park, parkway, trail, recreational area or playground established, maintained or administered by a county, city, or town.”

This situation is most likely when the landowner expects development to occur in the future and does not want to sell any of the land or encumber it with trail easements. Until the landowner seeks rezoning from the county, a lease may be the best method for the county to provide for public trail use on the property. At the time the landowner decides to develop the property and initiates the rezoning process, the county may require dedication of the trail.

Right-of-way leases and perpetual leases are the most promising methods for implementing trails on state trust lands. Long-term leases of trust land require public auction at no less than fair rental value. When trust land is leased, the State Land Department typically reserves the right to relocate the right-of-way if required by proposed development. Although the exact route of the trail across trust land may therefore be altered, the right-of-way applicant is not required to incur the expense of a registered survey. In order to gain access to trust land for purposes of locating a proposed trail right-of-way, the responsible jurisdiction should apply to the State Land Department for a right of entry permit.

In general, leasing will not be a preferred method of implementing trails. A lease cannot secure the trail for the future when pressures from development will be even greater and the county's ability to plan for and manage the trail will be circumscribed by the long-term goals of the landowner. Moreover, any lessor will surely require that the county indemnify him or her from liability during the term of the lease.

Trails Through Existing Subdivisions

Most of the trail implementation methods discussed in this document are applicable to existing subdivisions. However, because subdivisions have already been subdivided, trail dedication during rezoning probably will not be available as an implementation method. The most likely methods for implementing trails in existing subdivisions will be acquisition of trail easements or fee simple ownership of the trail right-of-way.

If a jurisdiction along the New River and Lower Agua Fria Corridor chooses to implement a trail segment in an existing subdivision by acquiring fee simple ownership of the trail right-of-way, all of the lots through which that right-of-way passes will be affected. Not only does this mean that the jurisdiction will have to interact with a number of different landowners, but also that some or all of the affected lots may be reduced below the minimum size permitted for the subdivision.

The effect of creating a substandard-sized lot will vary depending on what the landowner intends to do with the land. If the landowner has already built all the structures on the lot, the fact that the lot is reduced to a substandard size should not pose any problems. But if a landowner wants to build more structures or remodel existing structures on substandard-sized lots, there may be difficulty obtaining the necessary building permits in the future.

In this latter situation, the jurisdiction will either have to compensate the landowner for this diminished use of property, or facilitate a variance in the applicable lot size requirements. Such a variance, which is granted by the Board of Adjustment, must be in the form of an amendment to the zoning code as it relates to the particular parcel of property. Requests for variances must originate with property owners, although members of the Board of Supervisors and other local officials may provide information in support of the variance to the Board of Adjustment.

Because the need for these adjustments would arise from action to implement a public trail rather than from something done for the landowner's private benefit, the variances would probably be viewed favorably by the Board of Adjustment. The possibility of combining all of the variance requests resulting from implementation of a trail in a subdivision into a single hearing should be explored. This "class" approach could reduce the time and expense associated with obtaining the necessary variances for landowners who are helping to implement the trail system.

Density Credits as a Trail Implementation Enticement Prior to Rezoning

A jurisdiction can entice private landowners to cooperate in the implementation of public trails by assigning density credits to unsubdivided parcels of land prior to a rezoning application. In this situation, the landowner would benefit from the assigned density credits in the later sale or development of the property while the jurisdiction would be granted immediate rights-of-way for public trails.

Although the jurisdiction could probably implement this procedure through ordinance, this method of providing incentives to landowners can be exceedingly complex and of uncertain value for acquiring trails. Of particular concern for the jurisdiction are:

- Avoiding a position where the jurisdiction, in the interest of trails, is advocating subdivision of selected lands;
- Determining appropriate density credit rates in return for public trails;
- Making density credit decisions prior to a rezoning application and the opportunity to assess the full scope and implications of a proposed development plan; and
- Avoiding conflict with constitutional and statutory provisions that are applicable to legal rezoning processes.

Trail Through an Existing Residential Subdivision



Other Existing and Potential Stakeholder Groups

A variety of existing and new stakeholder groups, including private, not-for-profit and local citizen special interest groups, can work together to implement, operate and maintain the West Valley Recreation Corridor. Grass-root groups have demonstrated success in the implementation of large-scale master planning projects, including the Scottsdale Indian Bend Wash and the Rio Salado Project in the MAG region. Special interest groups can be very effective in supporting these projects as implementation of the project is shared among them. Special interest groups have an investment in their community and are often passionate about the benefits that a river corridor trail system, can provide. A few of these groups are listed below.

Valley Forward

Valley Forward is a non-profit business organization that promotes aesthetic, cultural and quality-of-life interests in the Phoenix area. This organization could take a lead in educating the public concerning the West Valley Recreation Corridor and how it will benefit the West Valley.

Western Maricopa Coalition (WESTMARC)

WESTMARC (Western Maricopa Coalition) is a regional coalition representing the leadership of government, business and community organizations. Its goal is to affect public policy to insure quality growth and overall community development in Western Maricopa County. WESTMARC efforts, such as the ongoing Arbor Day celebration, whereby educational and public awareness events, focusing on the environment, are invaluable for circulating information on the West Valley Recreation Corridor and the plans each city has for its portion of the corridor.

Local Neighborhood Associations/Groups

Neighborhood associations/groups can solicit support within their communities for a proposed trail system. With the inclusion of neighborhood connections to trails, these groups have the opportunity to benefit from the West Valley Recreation Corridor. In addition, neighborhood groups can act as a “watchdog” body to help deter crime and keep trails safe for all users.

Proposed Friends of the West Valley Recreation Corridor

A proposed ‘Friends of the West Valley Recreation Corridor’ public-private partnership group could be organized to assist in the preservation and enhancement of the New River and Lower Agua Fria Corridor. This grassroots effort could be fashioned after other river preservation groups, such as the Friends of the Santa Cruz River in Tucson, Arizona. The proposed ‘Friends of the West Valley Recreation Corridor’ may include local conservationist, ecologists, neighborhood activists, economists, planners and designer, as a collaboration of specialist designated to educate the public and local politicians as to the importance or preserving the unique qualities of the river system. The program may involve active fund raising events, special conferences and educational promotions, lecture series and public

workshops designed to encourage public support to continue the efforts of river conservation and trail development along the West Valley Recreation Corridor.

Private Sector Development

Past development projects have eliminated access to the River by constructing screen walls or have literally turned the development back to the River amenity. Siting development in this way limits the ability of residents to benefit from the West Valley Recreation Corridor. Recently, new residential developments have begun to recognize the value of open space and the river trails system along the River Corridor as a community enhancement and amenity. As a result, a limited number of adjacent developments are offering open space linkages from their developments to open space that forms the New River and Lower Agua Fria Corridor.

Future proposed developments, whether residential, commercial or a mix of uses should begin to respond to the positive aspects of the River Corridor by facing the 'front door' of the development project onto the River channel, creating gateways and linking secondary and primary trails to the development project. Private developments can take the lead in this effort by creating innovative site plans that are consistent with the trails and livability principles outlined in the West Valley Recreation Corridor Plan.

Proposed Trails Advisory Committee

A Trails Advisory Committee could be formulated to assist throughout the New River and Lower Agua Fria River Corridor's design and construction. This committee could include representatives from various land management agencies, such as Arizona State Lands and the Bureau of Land Management (BLM). The BLM, for example, operates the Black Canyon Trail and Trailhead access area. This Trail runs along the west bank of the New River, parallel to the proposed trail system. Advisory efforts by the BLM, and other affected agencies would ensure that any opportunities to link the Black Canyon Trail, as well as other trails adjacent to the proposed trail network, would be explored. The Trails Advisory Committee should also include jurisdictions along the corridor, property owners and other community organizations.

Trail User and Special Interest Needs

In order for the success of the New River and Lower Agua Fria Corridor as a transportation network, user needs must be addressed. Included below is a brief description of groups who will benefit from the trail system. The trail system has been designed to incorporate these user needs.

Recreational and Competitive Sport Bicycle Groups

Eliciting support from various bicycle advocacy groups or coalitions is important in the implementation of the West Valley Recreation Corridor. These groups can be effective at educating cyclists and pedestrians about the New River and Lower Agua Fria Corridor as resource for both alternative transportation and recreation. These groups can also promote bicycle safety and awareness, and provide volunteer efforts to assist in security and good public relations in the community as a benefit for all users of the trail.

Equestrian Groups

There are literally thousands of equestrian-oriented households, commercial properties, and businesses located within five miles of the New River and Lower Agua Fria Corridor. This population segment represents a significant economic and special interest group that can have a prominent role in the development and implementation of the West Valley Recreation Corridor. The physical linkages between supporting industries, stables, and recreation areas and residential areas is highly desired by the equestrian community, which is eager to find places to exercise horses on a regular basis. Therefore, eliciting support from equestrian clubs and organizations is important to accurately define this user group's needs.

Americans with Disabilities Act (ADA) Advocacy

The Americans with Disabilities Act of 1990 specifies construction and design specifications for transportation facilities, including trails, that aim to provide equal access to public spaces that had been effectively off-limits to a large and growing percentage of the population. Guidelines that conform to the ADA have been included in the West Valley Multi-Modal Transportation Corridor Plan, to ensure that the needs of this user group are addressed in trail design and development.

Public Transportation

A relative few number of existing public transit bus routes currently pass through the New River and Lower Agua Fria Corridor. Improved access, however, would increase linkages with surrounding areas will allow for greater integration of the New River and Lower Agua Fria Corridor with the regional transportation network. Demonstrating how urban trails and bicycle routes can link to public transportation system is an important aspect of the West Valley Multi-Modal Corridor Plan.

Linkage to Other Trail Systems

The New River and Lower Agua Fria Corridor can best provide open space linkages for various users along the wash—through the planned multi-modal trail system. Linkages to other trail systems, both existing and planned, as well as to schools, parks, transit, commercial nodes, and existing and planned residential developments is necessary to achieve the project goal as a multi-modal transportation system.



Existing Trail System along the New River and Lower Agua Fria River

FUNDING SOURCES & STRATEGIES

Existing and Potential Funding Sources

Various local, regional, state, and federal funding sources are available for implementation of the West Valley Multi-Modal Transportation Corridor Plan (the Plan). Potential additional private funds or facilities constructed in-lieu by developers is also possible through development agreements with local jurisdictions.

This section lists and discusses the primary funding sources available for further design and construction of the New River and Lower Agua Fria River Corridor (Corridor). For the purposes of this discussion, all State Highway User Revenue Funds (HURF) that may be available for pedestrian and bikeway facilities associated with the Corridor, including "local" HURF funds, are included within State funding category.

Local Funding Options

General Funds of the Affected Municipalities

One of the primary local revenue sources of cities, towns and counties are general funds resulting from sales taxes, property taxes, and other miscellaneous taxes and fees. These funds are often used for pedestrian and bicycle improvements. Generally, few restrictions are placed on the use of these funds, which are utilized for a large variety of local budget needs. As such, there is typically high demand for these funds for numerous government services. Design and construction of pathways through use of this funding source usually receives limited support from local governments unless their constituents lobby effectively for such use. General funds dedicated to bicycle and pedestrian improvements can range widely from community to community, depending on constituent demands, voter approval of bonds that are retired through general funds, and available budgets for other public services.

In some cases a component of local general funds can be dedicated to transportation improvements including the construction of trails. The City of Glendale is currently considering a sales tax dedicated to transit, pedestrian and bicycle improvements, for potential consideration by City voters in November 2001. If approved, this funding source could be utilized to improve some sections of the Corridor, specifically those sections of trail located within Glendale.

General funds can also be used to construct bike lanes, sidewalks, and pathways on bridge crossings of the New River (e.g., at Glendale Avenue) to access the path on both sides of the river. This kind of funding has also been used for at-grade or grade separated crossings of the path at major roadway crossings.⁹ The City of Peoria, for example, has also identified use of local general funds for constructing paved pathways within the City, including along the New River.¹⁰

⁹ Source: *City of Glendale Transportation Plan, Draft (Ongoing)*

¹⁰ Source: *City of Peoria Trails Master Plan Executive Study*, March 1999.

Maricopa County also has the ability to program local general funds for construction of trails and pathways. Again, this source of funding is highly sought after for a broad variety of social service needs and general County operations. It is anticipated that this source of funding will not be available for pathway implementation. According to Maricopa County officials, there is little support for pursuing sales or property tax increases for additional County services.¹¹

Maricopa County Flood Control District Funds

Flood Control District funds can also be used to construct maintenance roads that can be used as trail facilities when combined with Flood Control District properties. These facilities include flood control structures, railing, bridges, bank protection, and other devices that can facilitate pathway development. This source has limited availability. However, as pathway projects are developed, where possible, they should be combined with flood control improvements. For instance, flood control maintenance roadways can be designed and constructed to accommodate maintenance vehicles while allowing use by bicyclists and pedestrians. New flood control district facilities can also include new railings that can meet bicycle and pedestrian safety standards. Pathway undercrossings of major roadways and sidewalk pathways on bridges can be incorporated into major bridge structure work or construction of new bridges. The FY 2002-06 Flood Control District Capital Improvement Program (Proposed) includes \$286.5 million in flood control projects countywide. Additional information on Flood Control District projects and contact information may be found at www.fcd.maricopa.gov.

Parks and Recreation Funds

Local parks and recreation funds are generally derived from property and sales taxes and some fee revenues. These funds are often used directly for trail or trail-related facilities. Bathrooms, pocket parks, lighting, landscaping, as well as trails, are sometimes funded through parks and recreation departments. The costs to maintain trails are often incurred by these departments. Both the cities of Glendale and Peoria utilize these funds to assist with trail development and maintenance. As with general funds, the dedication of parks and recreation funds to bicycle and pedestrian improvements can range a great deal from jurisdiction to jurisdiction. Citizen involvement and influence, as well as jurisdictional priorities, will influence the funding levels for these improvements from parks and recreation budgets. The Maricopa County budget is currently under development and a Recommended Tentative Budget FY 2001-02 table of contents including the trails program may be found at www.maricopa.gov/budget.

Revenue and General Obligation Bonds

Bonds are usually considered a financing mechanism rather than revenue source. Debt service obligations should receive consideration before this mechanism is pursued. Bonding provides the facilities more expediently, but at the cost of interest to retire the bonds at rates generally ranging from 7 to 11 percent per annum (depending upon the jurisdiction's bond rating). In other words, the project delivers benefit sooner and for a longer time period, but at a higher cost. In this discussion revenue and general obligation (G.O.) bonds are considered as a funding source because they can be designated to build bicycle and pedestrian projects. When bond packages are presented for voter approval, they are often tied to a specific facility

¹¹ Based upon discussion with Maricopa County staff as part of the *Maricopa County Transportation Needs and Funding Options Study*, June 1999.

or program improvements. For instance, a G.O. bond package can be presented to voters for citywide sidewalk and lighting improvements or for specific sidewalk, pathway, bicycle lane, or other improvements that are clearly defined in the legal language of the bond.

Pedestrian and bicycle projects identified in a G.O bond are required to be constructed according to truth-in-bonding requirements, which may be more effective in constructing trails than having to compete with numerous other local demands on general funds. Revenue bonds, such as those repaid through Highway User Revenue Funds (HURF), can also be considered a revenue source because specific projects will be “locked in” and constructed, provided that revenue projections match project costs. HURF revenue bonds could be used to advance projects such as bridge reconstruction or new construction over the New River, with bridges better designed to accommodate bicyclists and pedestrians. The bonds could also be used to provide sidewalks, bike lanes, and shared use pathway facilities located within the roadway right-of-way, which access the West Valley Recreation Corridor pathway. Limitations of HURF revenues are discussed further in the State funding section.

Private Revenues

Private “revenues” include dedications, exactions, monetary contributions, corporate underwriting, donations of right-of-way, and construction of facilities to required standards. Dedications and exactions occur when landowners, usually as a condition of rezoning approval, provide right-of-way or easements for construction of public facilities such as pathways. In some instances, contributions, underwriting, and right-of-way donations are provided for pathway projects from landowners, private and public agencies, and nonprofit entities as a means of demonstrating commitment to public service. These entities also receive tax benefits as well as public recognition if they wish to have their donations advertised. Developers will often construct pathway facilities associated with their developments as amenities for their customers and future homeowners.

Development impact fees can also be considered as a private contribution. Development impact fees are paid by developers to help offset the additional transportation costs resulting from new residential construction. These funds may be used for multi-use lanes, paved shoulders, and sidewalks built as part of the required roadway cross section. In some circumstances, shared use paths have been constructed by jurisdictions using impact fees if the paths serve transportation needs generated by the new development.

An important contribution can be made by private development to the bicycle and pedestrian system. A recent study of American homebuyers by a market research firm for major homebuilders found that readily accessible bike and walking paths and natural open spaces were among the highest priorities for homebuyers.¹² Developers who either pay for or construct pathways, or who contribute development impact fees for their construction, are making wise investments that will directly benefit their developments.

Additional private sources include corporate underwriting and individual and non-profit donations. Private corporations have historically provided money for trail projects. These contributions have been in the form of monetary donations, volunteer labor, and sponsorship of projects. Corporate underwriting by companies such as Recreational Equipment Incorporated (REI), Lever Brothers, American Express, Maxwell House, The Phoenician

¹² Source: *American Lives, Inc., 1999.*

Resort, and Southwest Airlines have provided funds, commodities, and hours to the construction and maintenance of trails. These projects provide good publicity and exposure for the underwriters and highlight trail and park issues.

The level of private “revenues” used for bicycle and pedestrian projects will vary by jurisdiction, depending on jurisdictional aggressiveness in securing exactions, impact fees, and other contributions for facilities and programs. Citizen and nonprofit agency involvement is important in attaining private underwriting of trail construction and maintenance.

Regional Funds

MAG Regional Funds

MAG regional funds for transportation are derived from the current ½-cent regional sales tax dedicated primarily to controlled-access roadway improvements in the MAG planning area. A small portion of this funding source is also utilized for transit purposes. The funding source has a sunset clause for year 2005, although additional controlled-access roadway improvements will likely be desired well into the future. This source generated \$248.6 million in FY2000 for controlled-access roadway improvements and \$7.1 million for transit.

This source currently is not available for improvements to benefit the New River and Lower Agua Fria River Corridor. If the sales tax is proposed for voter renewal in 2005, there is potential to include multi-modal provisions including sidewalks, bike lanes, and pathways as eligible facilities. As a funding source with specific projects developed by MAG, reasonably good justification and public support exist to propose multi-modal improvements valley-wide (discussed further in the State section of this report). This source, in fact, could be considered for broader transportation improvements in addition to the freeway system. The funds are not a user-based fee and are paid by all citizens and visitors to the valley regardless of the travel mode utilized.

Other MAG Regional Funds

Other funds that MAG has involvement in administering include State-shared HURF revenues and federal transportation funds. To varying degrees, these funds can be programmed by MAG for various pedestrian and bicycle improvements. These funds are discussed in the State and federal sections.

State Revenues

State revenues include the State sales tax, Highway User Revenue Funds (HURF), Local Transportation Assistance Funds (LTAF) Arizona State Parks Heritage Funds, and Arizona Game and Fish Department Heritage Funds. Additional funding is under consideration as part of the State of Arizona *Vision 21* process, which is a multi-year study to determine multi-modal transportation needs and potential funding sources to meet those needs. Following is a brief summary of each source and their potential application to the West Valley Recreation Corridor.

State Sales Tax

The State sales tax revenues, as with local jurisdiction sales tax revenues, are generally budgeted to high priority programs and needs. Although generally not used for bicycle and pedestrian paths and trails, these revenues are available for bicycle and pedestrian facilities and programs. An increase in the State sales tax is currently under consideration as part of the Vision 21 process for dedication to transportation purposes. This increase, if approved, can and should be utilized in part for bicycle and pedestrian transportation projects. An increase of 0.25 percent in the sales tax would yield approximately \$4.8 billion for transportation purposes statewide over the next 20 years.¹³

Highway User Revenue Fund

The Highway User Revenue Fund (HURF), consists of State gas tax revenues, the vehicle license tax, and other miscellaneous fees and services. This revenue source constitutionally restricted to roadway purposes, which includes all purposes contained within the roadway right-of-way. Arizona jurisdictions have utilized HURF to provide roadway landscaping and to construct bicycle lanes, paved shoulders, sidewalk facilities, and shared use pathways that are within the roadway right-of-way. The HURF can also be used to construct bicycle facilities as part of roadway bridge crossings of the New River to access the path on both sides of the river, and for secondary pathways, bike lanes, sidewalks, landscaping, and support facilities such as park-and-rides and rest areas located within the roadway right-of-way. This kind of funding can also technically be used for at-grade pathway crossings of major roadways as well as grade-separated crossings such as bridges and underpasses.

For FY 2000, HURF distributions totaled \$76.9 million for unincorporated Maricopa County. HURF distribution information for individual MAG-member jurisdictions may be found at the Arizona Department of Transportation website, www.dot.state.az.us. This website includes regional, state and federal sources of transportation revenues and additional contact information.

Local Transportation Assistance Fund

Recent legislation has changed the eligibility of LTAF funds, which now must be used for transit purposes in all jurisdictions. These funds may be available for construction of sidewalks, bicycle racks, and other facilities that directly relate to or support transit use. There facilities can be located along or adjacent to the New River corridor, facilitating multimodal access to the pathway. LTAF funds are capped by state legislation at \$23.0 million for distribution statewide. Additional information may be found at www.dot.state.az.us.

Arizona State Parks Heritage Funds

Monies are appropriated statewide from this fund to a variety of State Parks projects including development of trails. Trail funds are a 50-50 match to locally provided money. When trails are a part of other projects, such as an interpretive center, park development, trailheads, etc., the project may be eligible for other Heritage Fund categories. The specific trails fund category of the Arizona Heritage Fund is only available to trails currently listed or nominated

¹³ Governor's Transportation Vision 21 Task Force, "Revenue Consultant Summary Report to Task Force, Suggested Revenue Plan", March 2001.

to the Arizona State Trails System. There is up to \$500,000 available annually for qualifying projects, as determined by the Arizona State Parks Board Heritage Fund. Additional information may be found at www.pr.state.az.us/partnerships/grants. Incorporated municipalities, counties, state agencies, federal agencies, and Indian Tribes may apply for this fund.

The Game and Fish Department

The Game and Fish Department provides 100 percent funding grants for projects including habitat creation, interpretive displays, signage, improved access areas for wildlife, etc. The grants do not require agency matches, and are awarded annually through a nomination and approval process similar to that of the Arizona State Parks Heritage Funds. The Game and Fish Department funds available for various types of wildlife protection and public access facilities are \$607,300 for FY 2001. Eligible applicants include the federal government or any federal department or agency, Indian tribe, the State of Arizona, all departments, agencies, boards and commissions of the state, counties, school districts, cities, towns, all municipal corporations, and any other political subdivisions of the state.

Also, the Conservation and Reinvestment Act (CARA) is a congressional funding bill that, if passed, would create legislation to provide conservation with the largest infusion of federal funds in history. The way the legislation is currently written, the Arizona Game and Fish Department would be eligible to receive, through a grant program, an estimated \$7 million each year for wildlife conservation, outdoor education and recreation. The Department plans to use the funds in part to provide for public access and recreation, including trails. Additional information on Game and Fish funding programs may be found at www.gf.state.az.us.

Governor's Transportation Vision 21 Task Force Recommended New Statewide Funding Sources

The Governor's Transportation Vision 21 Task Force was convened in 1999 to develop a long-range multi-modal transportation vision for Arizona's transportation future. The strong mission statement of the Task Force is to evaluate needs and recommend funding strategies to meet those needs for all modes of transportation, including walking and bicycling. The Task Force is not limited to State-only facilities, but is incorporating and planning for all levels including all local jurisdiction needs.

The Task Force has identified a \$20 billion shortfall in transportation revenues statewide over the next 20-year period. The Task Force is currently evaluating a large selection of potential funding sources to address the shortfall, including increased gas tax, gas tax indexed to inflation, vehicle miles traveled tax, BTU/Energy taxes, motor fuels sales tax, general statewide sales tax surcharge, personal income tax surcharge, property tax increase for transportation, and exactions/developer impact fees. A March, 2001 "Suggested Revenue Plan" was developed for the Task Force, with primary recommendations focused on an increase in gas and use fuel taxes, a sales tax surcharge dedicated to transportation, and increased development fees for transportation.

Several of these potential revenue sources can either specifically be designated in part to non-motorized transportation needs including bicycling and walking, or can at least be eligible for spending on these needs. It is the stated intent of the Task Force to comprehensively address multi-modal needs, and therefore the Task Force will attempt to arrange its revenue

package recommendations to include spending on non-motorized forms of transportation. The Vision 21 final report is scheduled to be published in April 2001.¹⁴ Additional information on the proceedings of the Task Force and potential funding sources and eligibility may be found at at www.dot.state.az.us/Vision21.

Federal Revenues

On June 9, 1998, the Transportation Equity Act for the 21st Century (TEA-21) became law, authorizing highway, safety, transit and other surface transportation programs for a six-year period through 2004. TEA-21 revenues available for pedestrian and bicycle uses are primarily received through the Surface Transportation Program (STP), which includes set aside funding categories specifically available for pedestrian/bicycle facilities and programs such as the Transportation Enhancement Activities (TEA) program and Congestion Mitigation and Air Quality (CMAQ) program. Bicycle facilities are also eligible from the National Highway System (NHS) program, with bicycle transportation and pedestrian walkways eligible in accordance with 23 U.S.C. 217. Most transportation programs contained within TEA-21 include bicycle and pedestrian facilities and programs as eligible activities, as described at www.fhwa.dot.gov/infrastructure/progadmin/covert21.htm.

The STP provides flexible funding categories and ensures the consideration of bicyclists and pedestrians in the planning process and facility design. STP funds can be used for provision of sidewalks and modification of sidewalks to meet Americans with Disabilities Act requirements, for shared use paths, paved shoulders and bicycle lanes, and for pedestrian and bicycle safety and educational programs. When highway bridges are being replaced or rehabilitated with federal funds on a highway where bicycles are permitted, the bridge must provide accommodation for bicycles.



Trail System with Trail Underpass Improvement

Ten percent of STP funding is set-aside for Transportation Enhancements, which can be spent on environmentally related improvements including pedestrian and bicycle provisions. Enhancement funds can be used for paved shoulders, bicycle lanes, sidewalks, and both paved as well as unpaved pathways that primarily serve a transportation purpose.

¹⁴ Source: Vision 21 Governor's Transportation Task Force Newsletters, March 2000 through January 2001.

Additional federal revenues which are eligible for use on various Corridor projects include Bridge Replacement and Rehabilitation (BR) funds, National Highway System (NHS) funds, and other funding sources. TEA-21 continues and expands provisions to improve facilities and safety for bicycles and pedestrians. The eligibility of NHS funds is broadened as described above, and safety and educational activities are now eligible for TE funds. Other changes ensure the consideration of bicyclists and pedestrians in the planning process and facility design. Following is a brief summary of these federal programs.

Transportation Enhancement Activity Funds (TEA-21)

Transportation Enhancement Funds are a source of federal funds available for pedestrian and bicycle projects. These funds are set aside by TEA-21 in order to add community or environmental value to a completed or ongoing transportation project. Arizona administered \$10.5 million in FY 2000 for transportation enhancement projects divided between ADOT and local government projects. Fifty percent of the Transportation Enhancement funds are retained by the Arizona State Transportation Board for ADOT projects. The remaining enhancement funds are available for local projects recommended by the metropolitan planning organizations (MPOs) and rural councils of government (COGs). Transportation Enhancement program and contact information within Arizona can be found at www.dot.state.az.us/ROADS/rdside/index.htm.

The eligible Transportation Enhancement activities include the following:

- Provision of facilities for pedestrians and bicycles (off-road or on-road facilities, including modification of existing public sidewalks to comply with the requirements of the Americans with Disabilities Act),
- Provision of safety and educational activities for pedestrians and bicyclists,
- Acquisition of scenic easements and scenic or historic sites,
- Scenic or historic highway programs (including the provisions of tourist and welcome center facilities),
- Landscaping and other scenic beautification,
- Historic preservation,
- Rehabilitation and operation of historic transportation buildings, structures, or facilities (including historic railroad facilities and canals),
- Preservation of abandoned railroad corridors (including the conversion and use for pedestrian or bicycle trails),
- Control and removal of outdoor advertising,
- Archaeological planning and research, and
- Environmental mitigation to address water pollution due to highway runoff or reduce vehicle-caused wildlife mortality while maintaining habitat connectivity, and
- Establishment of transportation museums.

Local government projects must be sponsored by a governmental body and must be endorsed by a MPO or rural COG. Private non-profit organizations are also able to work with governmental agencies to develop project applications. Transportation enhancement funds must be matched with other non-Federal funds of the total project costs. In Arizona, TE awards must be matched with a 5.7 percent cash contribution from sponsoring governments. Local match rules vary from state to state.

State highway system bicycle and pedestrian projects must be contained within the right-of-way of a State Highway and can be nominated by individuals, interest groups, and other governmental agencies, in addition to ADOT staff. Some projects associated with a State Highway may have to be sponsored by a governmental agency other than ADOT due to statutory limits on the use of State Highway funds. Any State Highways in the Corridor planning area are eligible for use of these funds, including for undercrossings, at-grade crossings, and bicycle and pedestrian facilities constructed as part of bridges.

Congestion Mitigation and Air Quality Improvement Program (CMAQ)

These funds are programmed by TEA-21 for projects that are likely to contribute to the attainment of a national ambient air quality standard, and congestion mitigation. These funds can be used for a broad variety of bicycle and pedestrian projects, particularly those that are developed primarily for transportation purposes. The funds can be used either for construction on bicycle transportation facilities and pedestrian walkways or for non-construction projects related to safe bicycle and pedestrian use (maps, brochures, etc.). The projects must be tied to a plan adopted by State and MPO. In FY 2000 \$30.6 million was distributed to the Phoenix metropolitan area, which is a nonattainment area for air pollutants including carbon monoxide and ozone. Additional program and contact information may be found at financeinfo@dot.state.az.us.

Bridge Replacement and Rehabilitation

These funds may only be used for replacing and rehabilitating bridges. This program provides funding for replacement of a structurally deficient or functionally obsolete highway bridge or to rehabilitate the structural integrity of a bridge. Bicycle lanes and sidewalks can be built as part of bridge rehabilitation, as well as pathway undercrossings of bridges. In FY 2000 \$10.2 million was obligated for bridge replacement and rehabilitation in the state of Arizona. Additional information on this funding source may be found at financeinfo@dot.state.az.us.

National Highway System

These funds are for improvement to the National Highway System that consists of an interconnected system of principal arterial routes that serves major population centers, international border crossings, airports, public transportation facilities, and other inter-modal transportation facilities as well as other major travel destinations. These funds can be used to provide pedestrian and bicycle facilities constructed on NHS routes in the Corridor project area. For FY 2000, \$95.2 million is programmed to be spent statewide on National Highway System projects, as described at www.dot.state.az.us/ABOUT/fms/fndsource.htm.

Highway Safety Funds

Bicycle and pedestrian safety remain priority areas for highway safety program funding. The Governor's Office of Highway Safety administers funding for safety-related programs in Arizona, including pedestrian and bicycle projects that improve safety along or across roadways. Grants are in the form of reimbursable contracts and are made on the basis of a 10 percent local match. For FY 2000, \$10.5 million is programmed to be spent statewide in highway safety funds, as described at www.dot.state.az.us/ABOUT/fms/fndsorce.htm.

Hazard Elimination and Railway-Highway Crossing Program

Another 10 percent of each State's STP funds is set-aside for the Hazard Elimination and Railway-Highway Crossing Program, which addresses bicycle and pedestrian safety issues. Each State is required to implement a Hazard Elimination Program to identify and correct locations that may constitute a danger to motorists, bicyclists, and pedestrians. Funds may be used for activities including a survey of hazardous locations and for projects on any publicly owned bicycle or pedestrian pathway or trail, or any safety-related traffic calming measure. The Arizona Department of Transportation website does not indicate specific funding levels for this program. However, additional information on this program may be found at www.fhwa.dot.gov/tea21/factsheets/index.htm.

Federal Transit Enhancements Funding

Federal transit funding, including the Transit Enhancements program, can be used to provide bicycle and pedestrian parking and shelter facilities and to install racks or other equipment for transporting bicycles on transit vehicles. This source of funding can provide valuable "support facilities" to enable bicyclists and pedestrians to access the Corridor trail system. Additional information on the Transit Enhancements program and other transit programs may be found at www.dot.state.az.us/about/transit and www.fhwa.dot.gov/tea21/factsheets/index.htm.

National Recreational Trails Fund

The Recreational Trails Program provides funds to states to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. Examples of trail uses include hiking, bicycling, in-line skating, equestrian use, and other non-motorized as well as motorized uses. The program was authorized in 1998 under TEA-21.

Recreational Trails Program funds may be used for:

- Maintenance and restoration of existing trails;
- Development and rehabilitation of trailside and trailhead facilities and trail linkages;
- Purchase and lease of trail construction and maintenance equipment;
- Construction of new trails (with restrictions for new trails on Federal lands);
- Acquisition of easements or property for trails

- State administrative costs related to this program (limited to 7 percent of a State's funds); and
- Operation of educational programs to promote safety and environmental protection related to trails (limited to 5 percent of a State's funds).

States must use 30 percent of their funds for motorized trail uses, 30 percent for non-motorized trail uses, and 40 percent for diverse trail uses. Diverse motorized projects (such as snowmobile and motorcycle) or diverse non-motorized projects (such as pedestrian and equestrian) may satisfy two of these categories at the same time. States are encouraged to consider projects that benefit both motorized and non-motorized users, such as common trailhead facilities. Many States give extra credit in their selection criteria to projects that benefit multiple trail uses.

Recreational Trails Program funds may not be used for:

- Property condemnation (eminent domain);
- Constructing new trails for motorized use on National Forest or Bureau of Land Management lands unless the project is consistent with resource management plans; or
- Facilitating motorized access on otherwise non-motorized trails.

These funds are intended for recreational trails; they may not be used to improve roads for general passenger vehicle use or to provide shoulders or sidewalks along roads. For FY 2000, \$800,000 is available statewide from the Recreational Trails program, as described at www.dot.state.az.us/ABOUT/fms/fndsource.htm. Additional information on this source may be found at www.fhwa.dot.gov/infrastructure/progadmin/covert21.htm.

Bicycle Transportation and Pedestrian Walkways

National Highway System, Surface Transportation Program, Congestion Mitigation and Air Quality Improvement Program, Scenic Byways, Recreation Trails and Federal Lands Highways funds may be used for bicycle transportation and pedestrian walkways under this program. No specific funding levels are identified, but additional information may be found at www.fhwa.dot.gov/infrastructure/progadmin/part3.htm#bikeped.

Transportation and Community and System Preservation Pilot Program

The Transportation and Community and System Preservation Pilot program is a comprehensive initiative of research and grants to investigate the relationships between transportation and community and system preservation and private sector-based initiatives. States, local governments, and metropolitan planning organizations are eligible for discretionary grants to plan and implement strategies that improve the efficiency of the transportation system; reduce environmental impacts of transportation; reduce the need for costly future public infrastructure investments; ensure efficient access to jobs, services, and centers of trade; and examine private sector development patterns and investments that support these goals. This program has been utilized to fund numerous bicycle and pedestrian programs and projects around the United States. A total of \$120 million is authorized for state use across the United States from this program for FYs 1999-2003, as described at www.fhwa.dot.gov/infrastructure/progadmin/covert21.htm.

Revenues Summary

The review of funding sources indicates that a large potential exists for funding bicycle and pedestrian facilities and programs associated with the Corridor. As documented in the State of Arizona's ongoing Vision 21 process, there is currently a high desire among residents statewide for improved transportation services and facilities, including additional bikeways, sidewalks, and shared use pathways. With strong public demand for bicycle and pedestrian improvements, implementation of the Corridor through a combination of these funding sources should be considered highly desirable.

OPERATIONAL & MAINTENANCE CONSIDERATIONS

Trail Acquisition Perspectives

An important objective in the preparation of this Action Plan was the inventory of existing trails and routes in the West Valley Recreation Corridor area and the definition of planned trails along the New River and Lower Agua Fria River Corridor. The Master Plan calls for a network of trails within the 42-mile Corridor that fall within both public and privately held lands.

The Action Plan is developed with an emphasis on the identification of several levels of trail acquisition priorities. Some perspective as to how realistic the scope of the proposed trail network will be is of value as the county and other jurisdictions consider the extent to which trail acquisition will be pursued. In other words, the question is; how important is the trail development effort for the West Valley Recreation Corridor in terms of other land acquisition needs by local jurisdictions. A number of criteria will need to be considered in order to determine the priority levels as outlined in the following major points:

Land Ownership: A majority of the proposed Primary Trail corridor is located in publicly owned rights-of-way such as the Flood Control District of Maricopa County. A significant portion of the other trail types and portions of the Primary Trail located in the Northern Reach of the Corridor, are located on privately held lands.

Flood Control Acquisition Programs: Flood control programs may result in public ownership for much of the New River and Lower Agua River Corridor resulting in the opportunity to develop the Primary Trail alignment as defined in this Plan.

Trail User and Property Owner Viewpoints: Trail users are enthusiastic supporters of public trails in metropolitan areas. However, property owners express mixed emotions as described below.

Other Metropolitan Trail Networks: Successful public trail networks in other metropolitan areas depend on public ownership and effective management. Several are of comparable size to the New River and Lower Agua River proposed Primary Trail facility.

Land Ownership

Land ownership is cited as a principal factor influencing the implementation of trails (**see Appendix B, Trail Segment Land Ownership Maps (1-16)**). Although easements and some

forms of agreements or licenses can be helpful in some special cases, public ownership of trails has consistently been found to be essential in the implementation of successful trail networks in metropolitan areas.

Public ownership provides:

- A clear right to public access;
- A definitive assignment of responsibility to the managing public agency to design, maintain and operate the trail in a manner that provides for the enjoyment and safety of trail users and adjacent property owners;
- An opportunity to the managing agency to effectively control the use and condition of the trail;
- Protection to adjoining private property owners against claims of damages or liability from public trail users.

Flood Control Acquisition Programs

Maricopa County has an ongoing program to acquire properties for flood control purposes where public interests are identified and available opportunities and funds permit. This program is important to the proposed trail network proposed as a part of the West Valley Recreation Corridor and New River and Lower Agua Fria River trail system.

The 42-mile trail system is a multi-objective corridor that incorporates flood control, open space, non-motorized transportation and recreation. The Corridor extends the entire length of the New River and Lower Agua Fria River. The Flood Control District of Maricopa County is positioned to work with each local community along the Corridor to continue a flood control acquisition program to develop the Primary Trail and remaining system of interconnecting public trails and related amenities along the Corridor.

Trail User and Property Owner Viewpoints

During the planning process of the West Valley Recreation Corridor, the expressed viewpoints of residential property owners adjacent to or near proposed public trails have been mixed. There have clearly been strong concerns expressed about personal security and privacy as well as about damage to wildlife habitat and other natural amenities along the proposed trails. Other adjacent property owners have taken the opposite position. They are supportive of public trails and feel that trails would be an asset to their property and lives. These viewpoints must be recognized as the trail implementation and ongoing operational and maintenance programs are under development.

Other Metropolitan Trail Networks

Compared to county and metropolitan trail systems in other states and elsewhere in Arizona, the scope of the proposed West Valley Recreation Corridor Plan and trail network appears ambitious. A number of other successful county and metropolitan trail systems designed to interconnect parks and other public lands, developed to serve as a non-motorized transportation function have been planned and implemented. These comparisons can offer Maricopa



Incomplete Trail Network along the New River and Lower Agua Fria River

County and other local jurisdictions in the West Valley some perspective on what can be accomplished in terms of developing a primary core trail system over the next 20 to 30 years—a time span necessary to implement most of these systems in other communities.

It is important to acknowledge that Maricopa County and many of the local jurisdictions in this region are at the beginning point of establishing a trails network that will require two or three decades to fully implement. As expected, the MAG region will continue to experience considerable population growth during this time period and presumably much of the trail network in the Northern Reach will be implemented through rezoning dedication at a pace equivalent to the growth rate. In this regard, much of the proposed trail network should be viewed as a concept plan to be implemented in balance with demonstrated growth and development.

Coordination of Trail Implementation

To achieve a functional trail network that crosses numerous jurisdictional and land management boundaries, a designated authority will be required to maintain a coordinating role to oversee the implementation program of the West Valley Recreation Corridor. A comprehensive implementation program will require the cooperation and assistance of local and county governments, business and community organizations, including trail interest groups. The implementation program is likely to be more effective if it includes the following:

- Mechanisms to promote intergovernmental cooperation;
- A trails/open space coordinator;
- A trail advisory committee;
- An annual trail acquisition program and schedule;
- Strategies for evaluating trails at the time of rezoning; and
- New county and municipal ordinances supporting the trails program.

Intergovernmental cooperation and coordination from supporting agencies such as Arizona Department of Transportation (ADOT), regional railway lines, the Flood Control District of Maricopa County, and state and federal land management agencies, is essential to the West Valley Recreation Corridor, if;

- Trails are to be continued across jurisdictional boundaries and existing rights-of-way;
- Trails are to be effectively operated and maintained; and
- Trails, such as the proposed CAP (Central Arizona Project Canal) trail and existing Sun Circle Trail are to be jointly sponsored.

Among the objectives for ongoing intergovernmental consultations would be to:

- Provide and share information pertinent to implementing and managing trails;
- Identify inconsistencies in trail management;
- Develop strategies for improved intergovernmental coordination; and
- Identify means of forging partnerships with citizen groups to support trail implementation and management.

West Valley Rivers Trails & Open Space Coordinator

The scope of the proposed trail network in the West Valley Rivers region require a position for a trails and open space coordinator would be created - and formally recognized by all affected jurisdictions in the region. This position could be incorporated into by MAG, Maricopa County, or other community leadership organization as deemed appropriate by all the project partners currently involved in the West Valley Recreation Corridor. The potential of using an intergovernmental agreement to establish joint agency funding for the West Valley Rivers Trail Coordinator position should be evaluated. Among the most important functions of the coordinator would be:

- Establishing and maintaining lines of communications with other governmental jurisdictions and agencies, the West Valley Rivers Trails Advisory Committee, and the public;
- Coordinating interagency trail actions for the MAG region;
- Coordinating the establishment of the West Valley River Trails Advisory Committee, representing the county at Committee meetings and functions, and supporting the Committee in accomplishing its goals;
- Developing and maintaining data and records on established and proposed trail and boundary access points in the West Valley Rivers trail network;
- Overseeing the planning and programming, design and construction contracts for trail projects in the West Valley Rivers and the West Valley Recreation Corridor;
- Monitoring and coordinating with local jurisdictions within the Corridor;
- Monitoring trail maintenance and law enforcement needs; and
- Developing trail recommendations for the annual budgets for trail development and land acquisition, operational and management programs.

The Maricopa Association of Governments (MAG), Maricopa County, and the cities of Peoria, Phoenix, Glendale and Avondale could enter into formal and informal agreements to coordinate and promote acquisition, design, development, operation, and maintenance of a non-motorized, multi-modal public trail system. An intergovernmental committee could meet at least biannually to address issues pertaining to the public trail network. An agency should be selected to serve as the administrative coordinator for committees and actions arising from inter-governmental agreements in order to ensure continuity of the trail network.

Trails Advisory Committee – West Valley Rivers Corridor

Citizen advocacy has been at the heart of trail issues in the MAG region since the preparation of the Sun Circle Trail master plan, and early discussions on shared-used trail as a part of the Central Arizona Project Canal system. Continued citizen involvement at a number of levels will be essential to motivate and assist government in its efforts to implement and manage the trails programs proposed in the Plan. Jurisdictions in the MAG region should utilize the active support in the community by establishing a Maricopa County West Valley Rivers Trail advisory Committee composed of citizen representatives to advise and assist the county and other local governments on trail issues and projects.

The role of this Committee would be to:

- Assist in updating the West Valley Multi-Modal Transportation Corridor Plan at least every five years
- Help establish appropriate design guidelines for the New River and Lower Agua Fria trail network
- Facilitate the formation and actions of trail groups interested in participating in the maintenance and operation of public trails through cooperative efforts such as an Adopt-A-Trail Program
- Organize a neighborhood trail-watch program to monitor the status of established and proposed public trails
- Promote public trail etiquette and respect for private property rights and privacy
- Develop promotional and public awareness campaigns to insure public access and protect the public's ability to develop a comprehensive system of trails in the West Valley area.

Bicycle Advisory Committees

Several communities in the MAG region already have established Bicycle Advisory Committees. These government-sponsored, volunteer citizen based committees can be extremely useful resources to assist local governments in the implementation of trails. In Tucson, Arizona, the Tucson-Pima County Bicycle Advisory Committee serves as an example of multi-agency coordination and citizen participation. This joint City and County sponsored committee is a formally recognized citizen committee that is sponsored by both governmental entities. The committee works with City and County staff in an effort to advise and assist staff level planners and policy-makers to continually improve upon the existing bicycle system and encourage the development of safe, continuous, and inter-connected bikeways, trails and pedestrian enhancements in the community. A similar structured committee could be a useful model in establishing a proposed West Valley River Trails Advisory Committee. It may also be appropriate to build upon the existing MAG committee structure by adding citizen representatives to the existing Regional Bicycle Task Force.

Law Enforcement and River Trails Bike Patrols

The Maricopa County Sheriff's Department, the County Parks and Recreation Department or other law enforcement agencies may consider establishing Bike Patrols to improve public awareness, and enforce rules and regulations governing the multi-use trail system. Bike patrols have been very effective tools to promote a positive public awareness and ensure a cost effective means to patrol urban trail systems. A number of law enforcement agencies (local police, Bureau of Land Management, Border Patrol) could participate in partnership to create a West Valley Rivers bicycle patrol to provide added safety to trail users and to deter criminal activity along the future New River and Lower Agua Fria trail system. A bicycle patrol could be organized on either a part-time or volunteer basis as well, depending on need and available funding allocated for such a service.

Trail User Groups and Neighborhood Trail-Watch Programs

The West Valley Rivers Recreation Corridor Project, with its partnership of the local jurisdictions and Maricopa County, could help facilitate the formation of trail groups interested in participating in the maintenance and ongoing operations of the trail systems in West Valley. Many communities have supported the idea of Adopt-A-Trails programs to stretch those local funds on such things as public awareness and general maintenance of trails. Organized neighborhood trail-watch programs developed to monitor the status of established and proposed public trails not only help maintain the trail system but also help create positive energy in the community for trails. These activities can also help to promote public trail etiquette and respect for private property rights and privacy along the trail system.

CONCLUSION

The Implementation Strategies Action Plan for the MAG West Valley Multi-Modal Transportation Corridor Plan serves as a tool for each jurisdiction located adjacent to the Corridor. This natural river corridor serves to link the communities of Avondale, Glendale, Phoenix and Peoria, and unincorporated portions of Maricopa County, with a multi-objective corridor that incorporates flood control, open space, non-motorized transportation and recreation. The New River and Lower Agua Fria River system could be a continuous 42-mile long potential trail system that serves as a point of pride for the West Valley and benefits residents for the entire MAG region. If this trail system is to become a reality, the most overriding consideration is public land acquisition for trails and trail access points.

Many funding sources are available to realize the New River and Lower Agua Fria Plan's proposed trail network. A variety of methods, including the purchase of property, designation of rights-of-way as trails, dedication of private lands for trails during the rezoning process, exchange of land, lease agreements and the establishment of conservation easements and trail use agreements may also help in preserve access to the public.

Because the trails in the proposed system pass through several local and county jurisdictions and connect to state and federal lands, involvement of all governmental jurisdictions is critical to implement the West Valley Multi-Modal Transportation Corridor Pan. A trail system as extensive as that proposed may take as long as 20 to 30 years to implement. In order to assure that the involved jurisdictions retain their resolve to implement the Plan, regional buy-in is imperative. All municipalities in the West Valley must maintain the strong partnership initiated by community visionary John F. Long, and active citizen support is critical.



River Corridor Trail System Lined with Mesquite Trees