

ISSUE IDENTIFICATION

The Issue Identification element of the *Tonopah/Arlington Area Plan* summarizes the major land development issues raised by the residents of Tonopah.

Open house meetings were held at Ruth Fisher Elementary School where residents, business people, property owners, Maricopa County Planning and Zoning Commission members and the Maricopa County Board of Supervisors were invited to comment on the future of the planning area. Prior to each open house, an informational flyer and legal ads were placed in the *Buckeye Valley News* to inform the public of the open house meetings.

Participants at the open houses identified specific issues and ideas they felt should be pursued to resolve the issues. Fifty-two issues were identified in the areas of Land Use, Transportation, Environment, and Economic Development. These issues were listed by the participants in terms of relative importance. Each issue was rated as low, medium or high. Twenty-six of the issues were rated as high in importance.

Additionally, focus group sessions were held and these groups provided a more detailed view of community issues.

BACKGROUND

Figure 1 illustrates the land use pattern within the Tonopah/Arlington planning area. Presently, most of the planning area is either vacant or in agricultural use. Some commercial development exists in Tonopah, Wintersburg and at interchanges along I-10. Residential development is scattered throughout the planning area. With the exception of the Palo Verde Nuclear Generating Station, no major industrial development or employment center is located in the planning area.

Tonopah residents attended focus group sessions sponsored by the Arizona Department of Commerce and expressed an interest in maintaining their rural lifestyle, however, many expressed the need for urban amenities and services. It's possible to meet these competing goals by creating urban development in a "node" of approximately one mile in diameter. Water and sewer could be developed to serve the node. Residents identified places for nodes that allow for unique opportunities for various types of development potential and character. The sessions produced the *Future Direction of Tonopah Community Development Plan*, and discussions with residents and Citizen Steering Committee members during the Area Plan process concurred with that plan. The I-10 Freeway is recognized as a vital link in the development of the planning area. The area is strategically situated within the I-10 growth corridor, and also has direct access through existing and potential freeway interchanges. In fact, the freeway interchanges were identified as the key interface between the freeway and the adjacent land uses.

SUMMARY OF RESIDENT ISSUES

The main issues for each plan element are as follows:

Land Use

- Maintain a rural lifestyle and attract planned developments to the area
- Improve and expand the existing public utilities and services

Transportation

- Improve the existing street network
- Pave roads as is necessary
- Develop a light/general aviation airport

Environment

- Protect the groundwater supply and quality
- Allow fishing along the CAP
- Promote Saddle Mountain as a conservation or special management area
- Promote Saddle Mountain as a recreational area and a regional park

Economic Development

- Promote industrial and commercial development

CURRENT ISSUES

Land Use

Residents in the Tonopah/Arlington planning area who attended open houses expressed concerns and made comments about the Area Plan. The following is a list of their responses:

- Maintain/preserve existing rural lifestyle
- Some landowners in the planning area voiced opposition to the 1du/ac rural land use designation and wanted 1du/ 5ac
- Encourage planned residential development and discourage lot splits
- Use reverse-fronting lots on arterial streets adjacent to residential development so direct access to arterial streets from individual driveways is eliminated
- Provide/promote areas for churches
- Reduce requirements for mobile homes and their placement
- Maintain agricultural land use designations
- Define the specific areas within the Tonopah planning area (i.e. Arlington).
- Adequate services should be available for all new development. Existing levels of service should be analyzed to aid in more efficient public facilities.
- Development in the Tonopah/Arlington planning area is affected by PVNGS.
- No open range law
- Locate a high school in the planning area
- Encourage medical facilities to locate in the Tonopah/Arlington area
- Improve traffic enforcement
- Obtain CAP water

Transportation

- Improve and add to freeway interchanges
- Increase the number of interchanges and/or access Roads
- Improve Salome Highway
- Improve dirt roads/pave roads
- Acquire dedication of section line roads
- Locate a light/general aviation airport
- Concerns about maintenance and safety of the existing roadways

Environment

- Place air quality monitoring stations in the planning area.
- Promote the preservation of Saddle Mountain
- Protect groundwater quality and quantity
- Allow fishing along CAP canal
- Develop package sewer plant(s) and encourage sewer improvement districts

Economic Development

- Encourage commercial development within one mile of freeway interchanges
- Concerned about future use of PVNGS man camp, do not locate prison facilities at the man camp site
- Encourage commercial development/quality
- One-half mile commercial/industrial strip off I-10
- Minimize the number of commercial intersections
- Prohibit linear or strip commercial development along arterial streets
- Encourage industrial development near PVNGS

Issue Analysis

Future development

The location of future development is dependent on many factors. It is critical to maintain a balance among different types of land uses within the planning area. A large increase in commercial development without a corresponding increase in residential development is inappropriate. Location of new development should relate to the feasibility of providing infrastructure to potential sites, and relationship, to natural features.

During the development of the ***Tonopah/Arlington Area Plan***—especially during the focus group sessions—it became apparent that emerging issues in the planning area are minor land division (lot splits) and large lot, ranchette subdivisions.

The planning area is experiencing significant scattered residential growth from minor land divisions. Arizona (ARS 11-809) permits parcels to be subdivided up to five (5) times by one individual (not acting in concert with another). Lot splitting often results in the creation of scattered residential communities without proper access, roads, sewers, water, or community services. Continued minor land divisions threatens rural lifestyle and natural

habitats. In many cases lot splits have had and will continue to have major impacts on land, washes, aquifers, wildlife and other components of the environment if not managed. A number of large lot subdivisions (**Figure 13**) have been developed in the planning area over the past decade. These subdivisions are characterized by lot sizes greater than 36 acres (ranchettes), little or no infrastructure improvements, and they cover large portions of undeveloped desert. More than 30 square miles of the planning area is divided into this type of subdivision. These subdivisions are not regulated by the County subdivision process due to state regulations. While many of the ranchettes will remain large and unsubdivided, in the future they may be developed as residential subdivisions, or be developed through lot splitting.

Transportation Issues

Transportation issues in the Tonopah/Arlington area have been raised through meetings and public questionnaires. These issues include:

- Improved access to the interstate provided by ADOT
- Residents would like their dirt roads paved
- Existing road could use more maintenance
- Residents feel that there are more accidents than before

Tonopah is a relatively undeveloped area with low-density development, and rural lifestyle. Traffic demand is currently very low, which limits the likelihood of projects being funded out of the County TIP. Maricopa County only maintains roads that are declared and accepted into the County System. State statute provides clear guidance to counties concerning which roads can and should be within their systems. Those roads that Maricopa County already has in its system will continue to receive regular maintenance and improvement when it is the right time (refer to *Eye to the Future 2020*, the Maricopa County Comprehensive Plan). The desire for additional roads in the area will only come as the result of development in the future. Minor roadway improvements (paving dirt roads) in the Tonopah area will most likely come in the form of improvement districts. Improvements to the existing one-mile grid roads will only happen as future growth in the area warrants these improvements.

Economic Development

Although Maricopa County is not actively involved in economic development programs, this section outlines economic development issues identified at the start of the planning process. The following is an analysis of the area's potential for economic development. The Tonopah/Arlington planning area has good east-west transportation access on I-10. This corridor provides the most long-term potential for economic growth in the planning area. New businesses locating along I-10 would increase employment opportunities for the surrounding community.

A large portion of the planning area suffers a lack of improved roads and streets. In the next few years, there will be a continuing rise in residential development. Due in part to its distance from the more urbanized parts of the County, the Tonopah/Arlington planning area is expected to experience a more modest rise in residential growth compared to other

portions of the County. Merchant power plants may contribute to some expansion of residential and commercial growth in the area as these plants are developed.

The Tonopah/Arlington area's current economic base consists of various agricultural activities, a small number of retail and service operations, retirees, and the PVNGS. The scattered character of these activities leaves the planning area without an established identity. Even with a clear identity and a solid community development effort, the planning area may have trouble attracting certain types of business.

On May 16, 1998, the Arizona Department of Commerce conducted an Economic Development seminar with residents of the planning area in an attempt to improve the economic health of the community. The purpose of the seminar was to give local residents an introduction to economic development principles. The seminar also allowed them the opportunity to develop strategies to guide the decision-making process for future economic development in area.

During the five-hour seminar, participants were asked their expectations for the community. The following expectations were identified:

- A change is needed in the community and residents wanted a say in that change
- The location of the planning area may cause growth
- They want to maintain their rural lifestyle and improve the school system
- Residents recognized infrastructure needs and deficiencies
- New job opportunities are needed
- Balanced economic growth is important
- Private investment in the community should be encouraged
- BLM land exchanges may add form to the community, the County should partner with BLM

The residents found that before a community can successfully create jobs, support or attract private investments, or expand the local tax base, that it must focus on its strengths and transform its weaknesses. Additionally, it must identify benefits and costs to economic development.

Participants identified the following costs and benefits:

Table 13– Benefit/Cost Analysis

BENEFIT	COST
Plan with County	Loss of Lifestyle
Developed background with County	More pollution
Organized Community Council	Increased traffic
Increased Jobs	Increased crime
Improved Police/Sheriff protection	Too much growth
More growth	Closer to metro area
Close to fastest growing area in County	Increased taxes
School – need for High School	
Increased tax base	

Source: Introduction to Economic Development, Tonopah, 1998, Arizona Department of Commerce.

Community participants identified the following assets and barriers to help make better economic development decisions in the future. Participants determined that all barriers could be corrected within the next ten years.

Table 14 – Assets and Barriers

ASSETS	BARRIERS
Transportation I-8, I-10	Nuclear Plant (PVNGS)
Location of Southern Pacific Railway	Undeveloped land
Nuclear Plant (PVNGS)	No high school
Central Arizona Project	Level of fluoride in water
Inexpensive land available	Lack of medical facilities
School – No High School, independent school district	Lack of community solidarity
Geothermal water	Identity and location
Pristine environment	Image
Nearness to the Phoenix metro area	Appearance
Availability of water	Lack of community library
Nearby recreation and hunting	Need for multi-purpose facility
	Apathy (welfare attitude)

Source: Introduction to Economic Development, Tonopah, 1998, Arizona Department of Commerce.

Based on a scenario of improving economic opportunities in the Tonopah/Arlington area, and working within the set of goals outlined by the community, the following types of economic activities may hold some potential for the planning area:

Tourism and Retirement

This sector can leverage off Tonopah/Arlington's desert environment, easy freeway access, RV facilities and natural hot "springs". Due to the rural nature of the area and low congestion, retirees appear to be a strong possibility. Both activities would expand the economic base of the planning area.

However, in spite of the impressive natural environment and two protected wilderness areas there are significant obstacles and implications associated with these kinds of development. First PVNGS will have a negative impact on the marketing of the Tonopah/Arlington area, especially for ecotourism. Although the hot water wells could possibly offset this impact, their development as recreational uses would require significant investment.

Promoting the area for retirement development may be a problem until medical services are more readily available. The tourist and retirement industries do not typically offer the type of higher paying jobs residents desire.

Retail and Service Activities

Tonopah/Arlington's location relative to I-10 appears to provide long term potential for growth in the retail and service industry due to its potential for future residential development. However, this type of development will require substantial improvements in infrastructure, such as expanded water and sewer services, in addition to adequate police and fire protection services.

Retail and service development will have difficulty competing with the broader range of goods and services available in the Phoenix metro area. Ultimately, the distance to the metro area will encourage local trade. This type of development shares one negative implication with tourism and retirement in that many of the new jobs created will have lower pay than residents desire.

Distribution and Industrial

In the long term, Tonopah/Arlington appears to be a prime area for industrial development, including distribution and light manufacturing. The proximity to the I-10 Freeway and its access to a large regional market—particularly Southern California—and the low cost of land. Jobs resulting from these activities would produce higher paying jobs than those created by retail and service industry. Energy deregulation makes the area attractive for locating merchant power plants due to the large amount of available land, the location of PVNGS, the proximity of the southwestern electrical grid, and the availability of natural gas. Impediments to this type of development are many, although most can be overcome. In addition to requiring similar levels of services as most service and retail development, these operations will be concerned about the availability of a quality workforce. The large workforce at the PVNGS demonstrates that importing skilled workers to the area can be accomplished. However, a first step to taking advantage of this type of development will be to offer a wider range of residential development, thereby encouraging more workers to live in the area.

DMP

The Belmont Development Master Plan was adopted on May 23, 1991 and may be beneficial to economic growth in the Tonopah/Arlington area. The original DMP provided for 3,293 acres of industrial and commercial land uses and consisted of six villages with varying types of residential development, open space, and equestrian trails. As the Belmont DMP develops, this commercial and industrial growth will play a more important role in the economic base of the Tonopah/Arlington region.

The Tonopah/Arlington area currently offers potential commercial and industrial locations, rural lifestyle, natural resources and inexpensive raw land. However, extensive infrastructure investment are needed, the local labor force must expand, and human services need improvement. Compared to other Valley communities, the Tonopah/Arlington area is not positioned to be a major player in economic development at this time.

An organized community effort and an active program of economic development, could help to create opportunities. This could include several factors such as creating a plan focusing on development in the area, creating road, water, and sewer special districts, and a single community organization to enact the development plan.

The following describes the potential character economic development of specific nodes within the planning area.

Tonopah Interchange (411th Avenue). This node was identified as favoring commercial uses, tourism, and retirement, keying off the existing hot mineral wells and light commercial. Existing businesses and services include the Tonopah Post Office; Tonopah Joe's and Alice Truck Stop/Restaurant; Woody's Chevron/Mini Mart; Minute Mart/Texaco; Carrillo Tire Service; Saguaro Hot Mineral Wells; Westward Motel; El Dorado Hot Springs; and Saddle Mountain RV Park and Stockbridge Ranch Land Sales.

Wintersburg Interchange (379th) Avenue. The Wintersburg interchange node favors housing development north of the freeway, keying off Ruth Fisher School, Valley Baptist Church, and light industrial and manufacturing south along Wintersburg Road, near the Palo Verde Nuclear Generating Station (PVNGS).

The 339th Avenue Interchange node favors commercial, warehousing and distribution, focusing on the trucking related facilities of the Rip Griffin Truck Service Center.

Wickenburg Interchange (355th Avenue). Potential interchanges at either 347th or Wickenburg Road would provide for residential development, and access to the Belmont DMP.

Energy Deregulation

Deregulation is a shift in the control of electricity generators from government to consumers. A competitive environment is created where the market responds to demand and not just regulatory ruling. Without the structure of regulation, utilities have less

government oversight and must compete for customers. In the end, consumers benefit with lower electricity prices and a choice of where they buy their power.

The Arizona Corporation Commission (ACC) passed the Retail Electric Competition Rule on December 26, 1996. This Rule (since amended) makes changes to electrical monopolies in place for more than eighty years and serving Arizona's residential, commercial, and industrial users.

The Rule:

1. Authorizes phased retail competition giving consumers a choice of electrical utility providers. All customers will be able to pick their provider by January 1, 2001.
2. Recognizes that competition will replace regulation to determine the cost of electrical generation to the user.
3. Encourages innovation and new business opportunities to develop in buying, selling or brokering electricity for individual customers or customer groups.
4. Allows utilities to recover their transition ("stranded") costs from ratepayers. Stranded costs are expenses utilities are required to pay, or investments they made but are not yet repaid by electricity rates.
5. Provides funds for the continuation of public programs such as energy conservation, public assistance, and consumer education.
6. Allows customers to continue service from their existing utility if they do not choose to be served by a new merchant electrical provider.

In the old market structure, investor-owned utilities—such as Arizona Public Service, Tucson Electric Power and Citizens Utilities—had franchise areas where they had exclusive rights to provide electric service. All aspects of their businesses were regulated by the government in exchange for this monopoly right. Standards for electric providers were set by the ACC. The Commission authorized utility investment in new facilities such as power plants, transmission lines or other necessary equipment. The ACC also set the rates that customers pay to the providers for their electric service.

After deregulation, the ACC sets service standards and regulates some of the competitive electricity market but much of the old structure will change. The Rule essentially treats the major private utilities as if they had four distinct functions:

- Generation of electricity - *deregulated*
- Transmission of electricity by transmission lines - *regulated*
- Distribution of electricity and customer services - *regulated*
- Metering and billing for electricity - *regulated*

Before deregulation, these functions were performed by one utility company in a defined service area subject to regulatory oversight by the ACC. After deregulation, these functions are done by the existing utility company, partly through new competitive businesses, and possibly by new regulated entities. The final goal is to achieve an industry where the free market influences price and efficiency without disrupting reliability and safety.

Deregulation and Western Maricopa County

The first effects of deregulation are being encountered in the area surrounding the Palo Verde Nuclear Generating Station (PVNGS). This area offers many opportunities for energy companies seeking to locate “merchant” power plants near a major electrical switching area in the western energy grid. Merchant plants sell power on the wholesale market. Existing energy infrastructure provides a strong attraction for energy service providers (ESPs) seeking locations for new power plants in western Maricopa County. ESPs have chosen Maricopa County to build merchant power plants for many reasons. The primary reason is PVNGS. It is the largest nuclear generating facility in the world and has perhaps the second largest switching facilities in the western U.S. Utility companies investing in new power plants are no longer solely Arizona energy providers. Deregulation allows utilities from other regions of the country to locate in Maricopa County and “plug” into the existing power infrastructure.

Another byproduct of deregulation is the independent affiliate. New West Energy and Pinnacle West Energy are “spin-off” companies from Salt River Project (SRP) and Arizona Public Service (APS). They have entered the competitive merchant ESP market with national companies such as PG &E Generating, Duke Energy, Sempra Energy and Panda Energy.

The most common type of merchant power plant built is the combined cycle gas-fired facility. Natural Gas is used as an energy source for gas turbines to generate electrical energy. These plants produce significantly less air pollution than other fossil fuel-based plants. They create heat as a by-product, which in turn is used to generate additional electrical energy by creating steam and driving a steam generator. The life expectancy of a combined cycle plant is approximately 30 to 50 years.

The El Paso Natural Gas Company pipeline crosses Maricopa County just to the south of PVNGS. This is the largest pipeline in their system and can serve major industrial users. The pipeline has the capacity to serve many new industrial users without requiring significant changes in the existing system.

Combined cycle gas fired facilities require large amounts of water for steam generation and for cooling. A typical 2,000 megawatt (MW) plant would require on the order of 10,000 acre feet of water per year for normal operations. This water can come from wells, treated effluent, irrigation districts, CAP allotments, or municipal water supplies. Much of the land surrounding PVNGS is either active or retired farmland. These properties are large and unsubdivided. There are also a number of large tracts of State Trust Land in the area. ESPs have purchased large tracts of land seeking the grandfathered water rights associated with the former farms.

Issues

The following are issues related to energy deregulation:

- **Water use**

Natural gas, combined cycle plants use large quantities of water for steam generation and cooling. A single 2,000 MW plant would use the same amount water that is needed for 10,000 to 12,000 homes. In comparison, according to the Department of Water Resources, in 1995 all the electrical power plants in Maricopa County used a total of approximately 3,832 acre feet of ground water. The area surrounding PVNGS has two primary sources of water. Treated effluent surplus from PVNGS or groundwater. Pinnacle West has proposed a combined cycle plant would use surplus treated effluent allotment from PVNGS. Some merchant plants have purchased large tracts of land to obtain the grandfathered irrigation rights associated with the land. The impact of the activation of these rights on the water table in the area has not been thoroughly quantified.

- **Evaporation ponds**

Water is cycled through the generating plants up to 15 times. At the end of the cycle, the level of dissolved solids in the water rise beyond the usable range. The water is then removed from the system and placed in evaporation ponds to remove the solids. Depending on the size of the facility, the required ponds require hundreds of acres. These ponds have an increased alkalinity, which may present a problem for migrating waterfowl, and may affect the underlying hydrology. Some plants may mechanically, rather than passively, evaporate their water using a Zero Discharge System. This method reduces the total water required for cooling by approximately 10%.

- **Large tracts of vacant desert**

With an ESP using the grandfathered water rights, the land can no longer be used for agricultural production nor can it have any use that requires water, such as industrial or residential development. While the actual power plant requires only a small amount of land, the remainder of the property will remain fallow.

- **Increased transmission lines/switchyards**

With more power plants being built, there will be an associated rise in the number and length of transmission lines. These connections are needed to transmit the power from the deregulated ESP to the regulated transmission lines and grid. There is also a need for a new and larger switching yard. According to SRP, who is responsible for providing the new plants (called interconnectors) access to the regional power grid, at present there is room at the switching yard at PVNGS for three additional interconnectors. A new yard will need to be built if there will be four or more interconnectors. Under the rules of deregulation, SRP is required to provide

connections to everyone, but the switching facility is to be paid for by the interconnectors.

- **Construction**

These projects will employ hundreds of workers during construction and are more than sixty miles from Phoenix. Little if any housing or services are available for these workers in the project area. Construction of a number of plants may seriously affect air quality both from the commuting workers and from on-site dust.

- **Employment and housing**

The power plants will provide a limited number of high quality employment opportunities and may include job training. The question is how many of the proposed positions will be available for the local job market? Many employees will be transferred to these projects. These projects will affect the surrounding community but there remains a lack of housing (temporary and permanent) and services for these workers.

- **Increased traffic and long commutes**

The plants will have material deliveries both during construction and normal operation. How these deliveries will be handled, their schedules, and their impacts are in question. How employees will work at the project and still achieve an appropriate balance of automobile use is an issue the area must face. Alternatives to a number of single occupant vehicles (SOV) commuting 60 miles (one-way) to the project should be considered. Van pooling or some similar type of alternative transportation should be sought.