



**CHAPTER 5: FINANCE,
INFRASTRUCTURE, AND SERVICES**







The Finance, Infrastructure, and Services section of the Surprise General Plan 2035 provides an overview of the various public safety, administration, utilities, and infrastructure located within the Surprise planning area. It is crucial that the City of Surprise has the necessary public facilities and services to support new and existing growth and development as well as adequate policies in place to determine what role the public sector plays in financing public services and facilities.

Growth in the City of Surprise and the Phoenix metro area requires expansion of facilities and infrastructure to serve the needs of the public. The City of Surprise will use various funding mechanisms to help in the creation of new and expanded services as well as in maintenance of existing services. The cost of maintenance has always

been the burden for the municipality; the cost of new services must have its “fair share” paid by for developers. To ensure City services are provided to all residents, the City must define goals and policies that determine what services will be required, the cost of those services, and if they can be paid for without undue burden on the taxpayer.

State laws require municipalities to review and report on the coordinated program of public works for the ensuing fiscal year. For the City of Surprise, the review will be accomplished through an annual Capital Improvement Project (CIP) report to the City Council. This report will address ongoing public works and their compliance with the adopted Surprise General Plan 2035. The report is to include public real property acquisitions or dispositions, public construction, or vacation of public streets. Acquisitions or abandonment for street widening or alignment projects of a minor nature are excluded from such review. All CIP projects shall be in conformance with the Surprise General Plan 2035.

Chapter 5: Finance, Infrastructure and Services

CONTENT

Cost of Development Element.....196

- Goal 1: Financial Sustainability
- Goal 2: Shared Development Costs
- Goal 3: Infrastructure Investment

Public Buildings and Services Element.....203

- Goal 1: Delivery of Services
- Goal 2: Public Buildings

Public Utilities Element.....210

- Goal 1: Infrastructure Investment
- Goal 2: Solid Waste Disposal
- Goal 3: Solid Waste Recycling
- Goal 4: Utility Corridors
- Goal 5: Technological Innovation

Health and Safety Element.....219

- Goal 1: Healthy Community
- Goal 2: Hazards
- Goal 3: Community Preparedness
- Goal 4: Hazardous Materials
- Goal 5: Risk Reduction
- Goal 6: Emerging Mitigation Techniques
- Goal 7: Communication

EXECUTIVE SUMMARY

This chapter contains four state mandated elements: Cost of Development, Public Buildings and Services, Public Utilities, and Health and Safety. In this chapter you will find policies for what types of public services and facilities are needed in Surprise. This chapter also establishes guidelines for funding the major goals and policies in this document.

The Cost of Development element explains the importance of the City being fiscally sustainable over time. The element explains necessary steps to review revenue and expenditures, maintenance and repair issues, and secondary costs to new development and re-development efforts.

The City's rapid growth over the past decade has created an irregular pattern of community services in the City. The Public Building and Services element will help ensure equitable and well planned facilities and services (that are not directly related to infrastructure) are provided throughout the City.

The Public Utilities element provides an overview of the various utilities and infrastructure located within the Surprise planning area. It is crucial that the City of Surprise has the necessary public facilities and services to support new and existing growth and development.

Central to any general plan is the importance of protecting the health, safety, and security of the citizens. The Health and Safety element addresses this as well as the protection of the community from any unreasonable risks.

Cost of Development Element

INTRODUCTION

For the City of Surprise to be fiscally sustainable over time it will become necessary to review revenue and expenditures, maintenance and repair issues, and secondary costs to new development and redevelopment efforts. Fiscal responsibility will come with not only a balanced budget, but by using our revenue streams wisely and for the correct purposes. Surprise has experienced rapid growth over the past decade. In response to this, it will become necessary to begin budgeting more of the City's money for repair and redevelopment efforts of older neighborhoods and infrastructure. As new development comes into the City, decisions must be made to consider secondary costs in developing or redeveloping areas.

DISCUSSION

Revenue

Revenue for the City of Surprise is not only in the form of city taxes, user fees, and grants. The City also receives funding from federal, state, and county agencies to perform necessary service additions and repairs. This money is typically earmarked for specific purposes such as streets, housing, or education.

Beginning Fund Balance

These revenues are carried over from previous budgetary years. This can be a positive or negative balance applied to the next budget cycle. In cases where the balance is positive the City of Surprise will schedule the funds to be used for capital improvements or other one time expenditures.

Construction Related

Revenues that are collected or earned by the City are directly related to the level of construction activity. These revenues will continue as long as the City continues to grow. It must be understood that these revenues are not a steady income stream and should not be used for regular service and maintenance costs to the City. These funds should be directed to capital improvements, redevelopment, or other one time expenditures. Revenue sources that fall under this category are:

Pay-as-you-go: Revenues generated by city taxes (sales, property, and construction), as well as state and federal shared taxes (state fuel and lottery taxes). Pay-as-you-go funding sources are typically used for daily services and maintenance costs to the City.

Development Impact Fees: Fees that are established by the City based on the cost of expanding services to accommodate new development. These fees are then passed on to the builder as part of the cost of the development. Development impact fees are currently in use. Impact fees are narrow in scope (i.e. utilities, police, library, roads, etc.). The impact fee must be attached to a capital improvement project that is directly related to the development being built. These are one-time fees and cannot be used to fund regular service and maintenance.

Local Taxes

Local taxes are the largest source of general fund revenue. These revenues are generally recurring with little or no external restriction on their use. Examples of local taxes are sales, property, and franchise fees. As a relatively steady source of income, local taxes should be directed to provide for regular services and maintenance throughout the City, as well as assisting—but not relied upon—to pay for other budgetary needs such as capital improvement projects.

Cost of Development Element



Other Revenues

This category includes grants, audits, building rents, program fees, and other miscellaneous revenues. Typically revenues falling under this category will be designated for specific uses. In most cases this revenue category is not a stable income stream and should not be used for regular maintenance and services. Revenue sources for this category may include:

Revenue Bonds: Revenue bonds are a method of borrowing to finance service expansions. Bonding must be approved by a public vote. Bonds are typically used for capital improvements in the form of unexpected utility or roadway repairs, or intentional expansion to spur development in select locations. By building the infrastructure the ideal case will generate an increase in sales and property taxes, which will pay back the bonds and create more revenue for the City. The bonds are paid back through future revenues that are legally pledged to the issuer. Revenues generally utilized for debt service are privilege taxes (sales tax), Highway User Revenues Funds (HURF) (i.e., payments made to municipalities from state fuel taxes), and user fees.

General Obligation Bonds: General Obligation (G.O.) Bonds are similar to revenue bonds but are based on the full taxing authority of the municipality. The City of Surprise may bond up to twenty per cent (20%) of its secondary assessed valuation with an additional six percent (6%) available for special projects. Like revenue bonds, G.O. bonds must be approved by public vote. Use of G.O. bonds is similar to revenue bonds in that they should be used for capital improvements. They differ in payment arrangements. G.O. bonds are typically paid back through property taxes with little or no sales taxes used. Like revenue bonds these can be used for immediate finance needs as well as spurring development in select locations.

Certificate of Participation/Municipal Property Corporations: These are methods of borrowing that are paid back by municipal revenues. No public vote is required to use these revenue sources; they are enacted through a council vote. These methods are usually not legally tied to a specific revenue stream in the way bonds are. With enactment through a council vote, these sources should be used for smaller capital improvement projects that require immediate attention from the City in the form of infrastructure repair and emergency equipment.

User Fees: User fees are fees charged for services such as water, sewer, trash collection, and recreation facilities. User fees are a direct method of subsidizing or fully paying for the specific use charging the fee. User fees may also be utilized to charge for advertising on public property such as ad copy at recreational venues and development and business directories in public rights-of-way.

Grants: Grants are revenues given to the City for specific projects. These revenues typically come from federal, state, and county agencies but may also come from private parties. Often grants require an “in kind” payment where the City matches the grant with a stated percentage of City revenue. The “in kind” funds can be attained from any of the above funding sources. The City is currently aggressive in attempting to obtain grants for all purposes. Most often these grants aid in emergency services, and housing programs. Grants that are achieved by the city must be used for the specific project applied for.

Borrowing

As the category states, these revenues come from institutions that lend money to be repaid by the City. These funds are typically used for unforeseen expenses and capital improvement projects. Borrowed funds should never be used to fund regular services or maintenance except in situations of extreme repair needs. Common items the City will borrow for are water, sewer,

and fire infrastructure, land acquisition, and community recreation projects. Common revenue sources for borrowing are described in more detail under the “Other Revenues” section. They include:

- Revenue Bonds
- General Obligation Bonds
- Certificate of Participation/Municipal Property Corporations

Special Financing Districts: This revenue source establishes specialized districts to increase city revenues for a specific project. Finance districts are typically used for redevelopment purposes where the project can be paid for over time. Examples of projects are: sewer, water, streets, streetlights, and community centers.

Lease-Purchase Agreements: Lease-purchase agreements require the City to make an arrangement with a private or public entity to purchase an item or building. While interest is paid, the payoff period is typically for a shorter period than bonds and the municipality will own the project at the termination of the agreement. Various agreements can be made on the terms of the lease or purchase. This revenue source is most often used to provide for immediate items with a relatively low cost compared with bond purchase items. This may also be used for lease or purchase agreements for new facilities or services. Lease-purchase agreements are a method of financing capital projects that lessens the up-front costs to the municipality.

User Fees

User fees are revenues associated with the provision of utility or public services by the City. Examples include sewer, trash collection, and parks and recreation fees. User fees are typically directed for regular City maintenance and services, and directed to the service they are derived from. In some cases user fees may assist in the development of capital improvement projects.

State Shared Revenue

State shared revenues are distributed to cities and towns based generally on the population at the last census or special census. Included in this category are state sales tax, state income tax, highway user revenue, local transportation assistance fund, and vehicle license tax. These revenues are typically earmarked for specific City expenditures such as street maintenance, transit, and education. State shared revenues can be considered relatively stable and should increase with the growing population of the City. These revenues should be used for both regular service and maintenance as well as capital improvement projects. Funding sources related to this category are:

Pay-as-you-go: (described under Construction Related).

Expenditures

To ensure Surprise maintains a sustainable budget it is necessary to review what the City funds, as well as analyze the desired amount to be spent on services and maintenance. To become a truly full-service city, Surprise must conduct research on expenses for expanded recreation opportunities and services, as well as analyzing timing on these expenditures.

As new and expanded services are desired by residents, the City must review the total costs and determine future budgetary needs related to the services before implementing them. In determining associated costs the City must look at location, construction costs, timing, phasing, and inflation. Locations for new services should be decided through desired level of services, under-served communities, and the amount of use the service will garner in the location. Once all issues of cost, location, and unforeseen hurdles have been determined as best possible, only then should the new or expanded service be brought forward to a Capital Improvement Project (CIP) budget. The project must then be looked at to determine its level of importance compared with other projects on the list. Fac-

Cost of Development Element



tors in determining the level of importance should include length of time it has been on the CIP budget, time to completion, cost of completion, safety, and importance to residents.

It is also important to keep in mind that not all new or expanded services can be provided by the City. In some cases analysis of costs may determine that a private service provider can establish the service at a lower cost to the City than having the City provide the service on its own. Some examples of this may be libraries (currently under contract with Maricopa County), fitness centers such as a YMCA, and waste services like recycling and hazardous waste disposal. In other cases the service may be in high demand by residents but cannot be placed into City expenditures due to its nature. Examples of this are federal and state projects like freeways and military expansions.

As Surprise continues to grow, determinations will have to be made on how the City will acquire or purchase what is necessary to create a full service city. Some of the items that budgets typically consider are land, manpower, equipment, facilities, buildings, and maintenance.

Land

The City of Surprise has many methods to acquire land for the purpose of public development. The most common method of acquiring land for the city is through entitlements. When a developer applies for entitlement (zoning, subdivision, etc.) it will be required to provide property for civic needs (schools, fire stations, streets, etc.). The City may also purchase or negotiate for land directly as required. Land purchases may be made to provide space for required services or for preservation of open space. These first two methods are attempted before any consideration of the final method, eminent domain. In a recent Supreme Court case, it was decided that eminent domain could be used to acquire land for the purpose of economic development. For the City of Surprise

eminent domain is a last resort to be used only for the development of roads, utilities, and direct public services. Eminent domain still requires compensation from the City after the acquisition of the land.

Buildings, Facilities and Utilities

Public buildings are usually paid for by the City, potentially with some share paid by the developer. For roadway and utility improvements this is often provided entirely by the developer at the location being developed. In locations with no ongoing development, improvements must be budgeted and paid for by the City. In the case of private utilities (phone, cable, power) the cost is paid entirely by the provider or agreements are made between the developer and the provider for service. School districts within the Surprise Planning Area are provided the opportunity to work with developers for funding and land agreements to aid in the construction of new facilities and hiring of additional staff.

Equipment and Labor

New equipment and labor needs are paid for by the City of Surprise and may have some share paid by the developer. These items are most often funded through impact fees and grants. The City of Surprise also works with the school districts to provide the opportunity to create agreements between the districts and the developers.

New Development Costs

As Surprise continues to grow at a rapid pace, and when the growth slows, it is important to ensure new development and redevelopment efforts pay their “fair share.” Typically this fair share is provided by: land donations or in lieu fees for emergency services, schools, and parks; offsite development of streets and infrastructure (directly connected to the site); impact fees; and in some cases development of necessary regional capital improvements (water and sewer facilities). In cases where the develop-

ment has special offsite needs (additional road and sewer connections) the developer will provide a limited first phase construction of these to serve the initial development.

Once these new services are built, the City must then provide for the remainder of the expenses. After the development is built the City will ensure it provides police and fire protection as well as parks and other recreational opportunities. This may be as little as adding additional waste service routes to hiring additional personnel or building a new facility. On top of the new services and maintenance, the City must also determine what additional services it will be required to provide to the area. Items that should be considered during development to reduce the cost to the City are: scalloped streets, connections to other developments (pedestrian, bike, and vehicle), does this development create the need for additional buildings, services, schools, or hospitals.

There are several methods Surprise can use to ensure a complete development from the beginning or to minimize the future costs of expanding services to new developments. Some of these include sharing construction costs with developers, incentivizing developers to bring necessary services through development agreements, building services and infrastructure in advance to prevent future rising costs, and targeting development to areas that are ready to receive it.

Shared Costs

As a new development is created in Surprise and services outside the initial scope of the development are needed, the City can team up with other developers and cities to share the burden of making the improvements. An example of this is to create a service with the help of the new development such as libraries or community centers. The costs will be reduced by sharing costs among the parties and having the build-out completed prior to construction costs increasing further from inflation. As other developers build nearby and use the service, they can

repay the City for their share of the cost. The end result is a lower cost service built by City funds upfront and repaid to the City at a future date. When considering this option it is important to analyze the service to ensure the maintenance and operational cost is not higher than the savings generated by creating the service before build-out of the area.

Incentivizing Development

In some cases it may be beneficial to the City to incentivize growth through development agreements. These agreements may include items such as tax reduction, waiver of fees, and capital improvements by the City. The cases typically arise when a service cannot be provided by the City (retail and employment). When considering development incentives the City must analyze the case to ensure the return, timing of the return, or benefit to the citizens outweighs the improvements or other arrangements made by the City.

Development may also be given an incentive to locate to an area of the City where growth is more desirable by placing infrastructure in advance of actual development. Through providing service to targeted areas and having developers pay their “fair share” when they build, the City can target growth and influence employers and retailers to the market by reducing infrastructure concerns. When planning for advance infrastructure the City must analyze the amount of service to be provided based on desired development and the size of development. Once determined, the City must also look at maintenance costs, repayment costs, and timing to decide if this is the best course of action.

Maintenance Costs

The daily maintenance and service provisions by the City of Surprise are handled through the City budget. The revenue needed to provide these maintenance and service provisions should total less than the sales and property tax revenue brought in from a development. Ideally the total should balance to zero, but over time

Cost of Development Element



replacement of infrastructure will become necessary requiring extra funding for redevelopment and repair efforts. As Surprise is a relatively young city, this has not been a primary concern. Now with some of the first developments and neighborhoods of Surprise beginning to age, more of the budget will need to be directed to repair and maintenance efforts as well as creating services that were not originally provided to the community. This can be accomplished through steady revenue streams and good planning, or may be provided by bonds for immediate funding needs. If bonds are used, they should be paid back through the increase of tax revenue the redevelopment effort can generate.

Maintenance Cycles

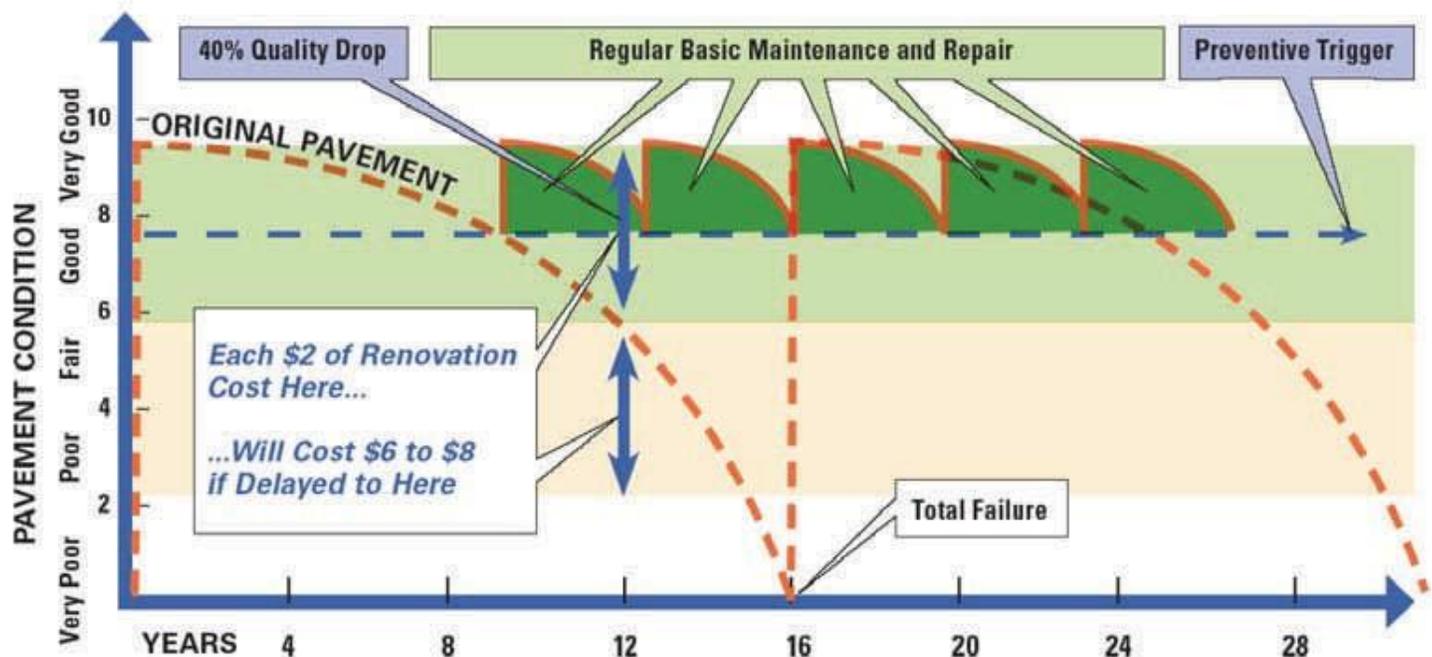
All development in Surprise has a maintenance cost and replacement timing. From streets to street-lights and parks to the stadium, a budget must be determined to consider replacement or repair of the service, utility, or building. Some of this has already been started with common items like street maintenance. The graph below shows a simple diagram of how often street

maintenance is required (Figure 5.1A below). It is easily seen that repair should begin within eight to twelve years and every three to four years afterward. It also clearly shows the increase in cost with delay of maintenance. The timing shown in this graph is dependent on outside variables such as number of vehicles and average weight of the vehicles (truck routes will degrade faster than other streets)

Surprise has little experience with aging neighborhoods other than the Original Townsite. As some of the first planned neighborhoods age there will be an increase on the overall City maintenance load. Repair or maintenance of streets, street lights, parks and more will need to be phased into the City maintenance schedules. Some neighborhoods are already beginning to enter this maintenance cycle while others still have several years. Future funding efforts will have to ensure a balance between new development and developments that have entered the maintenance cycle.

Figure 5.1A

The Cost of "Timely" Maintenance



GOALS AND POLICIES

Goal 1: Financial Sustainability

Surprise should be financially sustainable.

Policies

1. Uphold sound financial policies and mechanisms.
2. Promote financial sustainability by ensuring the timely maintenance of infrastructure such as streets, facilities and grounds and by making every reasonable effort to reduce infrastructure costs and maximize the life capital of projects.
3. Sustain an open public dialogue that quantifies the public's desires, the costs for addressing them, and the funding alternatives available.
4. Ensure new development pays its "fair share" of growth and allow that community improvements are systematically provided to address growth.
5. Invest funds for maintenance, capital improvements, and redevelopment efforts.

Goal 2: Shared Development Costs

Require that development pay its share of the cost of public service needs generated by the development.

Policies

1. Infrastructure and services provided by the development should be mutually beneficial for the City and the developer.
2. Offer fee or cost reduction when publically financing or funding is in the City's best interest.
3. Update funding mechanisms regularly including impact fees for public services.
4. Explore alternative financing of City facilities.

Goal 3: Infrastructure Investment

Infrastructure investments and land use decisions should be coordinated to ensure long-term, economic stability for the City.

Policies

1. Consider long-term revenue implications of land use decisions.
2. Promote revenue generating land uses.
3. Promote infrastructure capacity in identified growth areas.
4. Ensure capital improvement plans provide a balanced infrastructure that will benefit both private and public sectors.



Public Buildings & Services Element

INTRODUCTION

The City of Surprise has grown rapidly over the past decade. This has created an irregular pattern of services in communities and the City as a whole. Some communities may offer more amenities while others have none depending on the development requirements at the time. The public building and services element will ensure equitable and well planned facilities and services (that are not directly related to infrastructure) are provided throughout the City. This will require setting desired levels of service, providing said level of service with all new communities, and retroactively develop services that are lacking in existing neighborhoods.

DISCUSSION

Level of Service

To determine what constitutes an equitable provision of city service, the City of Surprise must first determine the desired level of service for any service provided by the city or other private and non-profit entities. The method to determine this can be measured in many ways depending on the amenity provided. Examples of this include service per population, per area, or per distance traveled.

When determining level of service it is important to also consider the desired level of service when related to the existing or future intensity of the area. Equitable service planning for the City of Surprise will look at the sustainability of the service when compared to the number of users and the cost to the city. Fewer services will be provided in rural areas in general due to cost of providing the service as well as the fewer number of residents who will benefit from the service. When looking at service levels compared to density it will be important to examine the need of the residents and if there are other areas of the city that have a greater need for the same or different services when budgetary constraints are applied.

City Services

This chapter lists the major services provided by the City (Map on page 209) and the issues related to examining future needs and desired levels of service. Some services may be discussed in other portions of the Surprise General Plan 2035 (ex. community recreation). As other services develop or new issues arise, the plan will be amended to include them for analysis.

Emergency Services—Fire

The City of Surprise fire department currently provides an “all hazards” approach to providing emergency services throughout the City. The fire department has an ISO (Insurance Service Office) rating of a three (3). The fire department provides services out of seven fire stations strategically located throughout the City and an administrative headquarters located in the Public Safety Building. Core fire department services are Public Fire Protection (fire suppression), Emergency Medical Services (Advanced Life Support and Basic Life Support), Special Operations (Hazardous Materials), Fire Prevention and Education (Public education, Inspections, Fire Code Adoption), and Crisis Response (Social Services). Current fire stations are shown on the City Fire Station Map on page 204. With future growth, additional fire stations will be needed to provide protection to those in

Lake Pleasant Park

General Plan 2035 FIRE STATIONS

Peoria Planning Area

Buckeye Planning Area

Sun City West

White Tanks Regional Park

El Mirage Planning Area

Youngtown Planning Area

Glendale Planning Area

Features

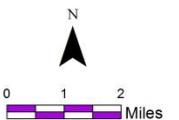
-  Existing
-  Future
-  El Mirage

-  US Highway
-  State Freeway
-  State Highway

-  Freeway
-  Expressway
-  Parkways
-  Major Arterials
-  Minor Arterials

Boundaries

-  Planning Area Boundary
-  County Boundary
-  Surprise Corporate Limits



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Public Buildings and Services Element



outlying areas of the City. The City will work with developers to plan for proper fire and emergency medical coverage and services in accordance with the City of Surprise Fire Department Master Plan.

Training

The City of Surprise fire department trains its firefighters to National Standards and modern firefighting concepts. The City currently trains regionally with other municipalities to maximize efficiencies and standardize training opportunities. The City of Surprise has entered into an Intergovernmental Agreement with three other cities and a Community College to build and maintain a regional training facility. The Surprise Fire Department embraces technology to ensure and maximize training of its employees.

New Technology

As new technology is created to save victims' and fire fighters' lives, it is important for the City to provide for it. This technology is not only the latest firefighting equipment to be used by fire fighters, but new building construction techniques and equipment placed in every home or business. As these issues arise, the City will review them for placement into the City code.

Emergency Services—Police

The City of Surprise provides police service through patrols, community education, and neighborhood programs. These services are currently provided from a central location at the Public Safety Building shown on the City Services Map on page 209. Police services will require expansion with the growth of the population. The service not only needs to grow in the number of patrol officers and vehicles, but in the methods and techniques used to protect and serve the public and in the locations the public can easily interact with law enforcement for education and reports. Higher density portions of the City may be better served through foot, equestrian, or neighborhood electric vehicle patrols. Higher density areas may also be

better served with police substations for easier reporting and interaction by residents, as well as a central work station for the officers.

Jail Facilities

The City of Surprise currently contracts with Maricopa County Sheriff's Office for jail facilities. To ensure this service is maintained, the City will continue the contract or may review options in the future such as a joint West Valley facility or city run facility. Operating a city run facility does increase issues as far as location, security, and manpower.

Deterrent devices

To better serve the public the police department can use modern technology to enforce laws and solve crimes. Deterrent devices like photo radar and red light cameras can increase safety at hazardous locations throughout the city. Having retail stores install newer video technology will allow police detectives to better serve the public by having quality video that can positively identify suspects and aid in their arrest.

Medical Services

Medical services provided to residents of Surprise begin with the 9-1-1 system. The Emergency Medical System provides Advanced Life Support to all citizens of Surprise, provided by the Surprise Fire Department. Specially trained firefighters are trained as emergency paramedics certified by the Arizona Department of Health Services to "bring the Emergency Room into your home." A base hospital physician gives life saving medical direction to a Surprise Firefighter/Paramedic. Once stabilized, transportation is provided by a private ambulance provider. The Firefighter/Paramedic will continue advanced medical treatment until the patient is turned over to the Emergency Room staff. There are two private hospitals in the immediate area: Banner Del E. Webb Medical Center, and Banner Boswell hospital. Catholic Healthcare West is expected to begin construction within the Surprise city limits near SR 303 and Waddell Road. As Surprise

Surprise General Plan 2035: Foundation for the Future

and its neighboring cities grow, it will be important to consider where a future hospital should be located to provide the best service to the region.

Service Level

There are several levels of service in the medical field, general practitioners, care centers, hospitals, trauma centers, and specialty facilities. These services can often be combined in one building. Your general care doctor may have their own office, or may be located inside a larger hospital or clinic. At the same time, a hospital or clinic may offer trauma care or specialty care. Within Surprise a market study would be required to determine the level of care being provided at every level.

Trauma centers

Trauma centers are hospitals able to care for serious injuries depending on their designated level of service. The service levels are from one (1) (provides any emergency care) to four (4) (provides fewer services, may stabilize and transfers patients if needed). In the Phoenix metro area, there are five level one centers. The nearest service for the west valley is John C. Lincoln near 2nd Street and Dunlap Avenue. With no level one center west of I-17, Surprise becomes a prime location for future services to the region.

Private Funding

Currently the hospitals and ambulance services are providing a desired service level and are expected to keep pace with growth and service needs. If the level of service fails to meet resident expectations, the City may consider providing funding or providing service of its own to maintain desired levels.

Library

The City of Surprise currently has two Maricopa County Branch libraries. The facility has been provided by the City while service is being provided by the county. At this time there is no set desired level of service for libraries within Sur-

prise. The level of service in regards to the library collection is handled by Maricopa County. The City will need to set a desired level of service to determine if residents are adequately served by community libraries.

Location

Libraries built in the future should become a central part of the community. The library is no longer a place where people check out books; now it is a research center, art display, continuing education center, and any other use the public may have. A location that can provide this much to a community becomes a central piece in making a public place.

Change in technology/new media

As technology and media forms change from video tape to DVD and now from DVD to Blu-ray and into formats of the future, libraries must keep pace. Adequate funding will be required to provide these new formats. Space to store the format as well as staffing to handle them may also become issues. This may require libraries to adjust their collections or expand to allow for the new formats.

Change in desired services

With changes in technology and changes in public desires, there will be a need to provide for upgrades in library collections and services. Today's libraries not only provide books, magazines, audio and video entertainment; but community education, art, computer labs, and live entertainment as well. These are just a few of the changes occurring today, in the future there may be more demand for a particular format or the need to adapt to new formats and services. Libraries will have to set levels of service and receive additional funding if they are to adapt and remain an important part of the City's future.

Community Centers

Community centers are locations that provide the neighborhood or village with all manners of services, entertainment, or information. These

Public Buildings and Services Element



centers should be centrally located in communities throughout the City and tailored to meet the needs of the public in the area. Community centers are not always publicly funded facilities. Many of the active retirement communities within Surprise provide their own recreation centers and provide education and information about their community. For the City of Surprise there are four public and several private community centers. The community centers are shown on the City Services Map on page 209. As the City grows, a desired level of service for community centers should be set. At this time City zoning codes encourage the placement of community centers with few developers taking advantage of them.

Public/Private Partnerships

For those community centers that are privately sponsored, the City of Surprise should establish a working relationship to provide citywide information to the residents who use these facilities. The City may also work with larger private and non-profit groups such as the YMCA (Young Men's Christian Association), the Boys and Girls Clubs, fraternal orders (Lion's Club, etc.), and veterans' groups (VFW—Veterans of Foreign Wars, American Legion, etc.) to provide expanded locations, services, and they may provide an additional source for funding and maintenance of the community centers.

Public/School Partnerships

Schools are a central location for many neighborhoods. As such they can play a vital role in providing community activities, education, and information. Partnerships between the City and local school district should be expanded to include summer recreation services, youth and adult sports leagues, and youth and adult continuing education.

Location

As the City grows, locations will need to be planned in advance for future community centers. These community centers should be de-

tailed in the village planning process. The center itself can be dedicated to the City for development, or may be created by a private developer or organization.

Uses

As locations for centers are planned, a level of service with desired uses in each village should also be laid out. In cases where the community center is developed by a private organization, it should be determined if said center must include agreements for more public services. In cases of fraternal orders or other non-profit organizations, they serve their need, but through a partnership may provide information, education, or services to the general public. Privately developed community centers may be opened to the public at large through partnership with the City.

Specialty Recreation Centers

Specialty recreation centers are community centers that provide a specific service that is needed within the City, but have a larger service area to serve multiple neighborhoods. The City currently provides aquatic centers, a major league baseball stadium, a professional tennis facility, and Dreamcatcher Park, the state's first fully accessible baseball field. These locations are shown on the City Services Map on page 209. Like community centers, more specialty centers will be required in the future. It will be difficult to determine levels of service due to the variety of services that may be desired by residents. These may include a performing arts center, civic center, and other recreation and sports facilities. City staff and residents must work together to determine the importance of any future facilities and where they can be placed in the Capital Improvement Project (CIP) budget. In cases where a private or non-profit facility can be provided, the City should work to properly locate these services.

Uses

As the City grows and changes over time in both population and desired services, it will be important to constantly work with the public to discover

what new facilities may be desired. If older facilities are no longer serving the public need (i.e. the use is no longer a popular activity), plans should be made to renovate or replace the facility with those that meet current demand.

Location

As the City expands, it may become necessary to plan for specialty recreation sites. These sites should be detailed in future village plans. Once located, developers should be encouraged to dedicate the land to the City with development agreements in the same manner fire station locations are reserved.

GOALS AND POLICIES

Goal 1: Delivery of Services

Maintain processes and policies to ensure efficient and effective delivery of services.

Policies

1. Determine and review desired Level of Service (LOS) for public facilities where necessary.
2. Ensure the City of Surprise has adequate municipal facilities to serve the needs of the residents.
3. Ensure city police and fire departments have adequate facilities to provide efficient response times.
4. Encourage integration of public service centers to include: fire and police stations, community centers, libraries, and other public facilities.
5. Locate and design public facilities to enhance communities.
6. Continue to maintain high quality and efficiency in public and emergency services to the extent that is consistent with policies and finances of the City.
7. Provide effective, visible emergency service presence in the community, timely and appropriate response to calls for service, and appropriate involvement in the resolution of problems.

8. Plan and prepare for the future service needs of the community.
9. Pursue alternative means of funding, volunteer services, and alternate resources to improve public service.

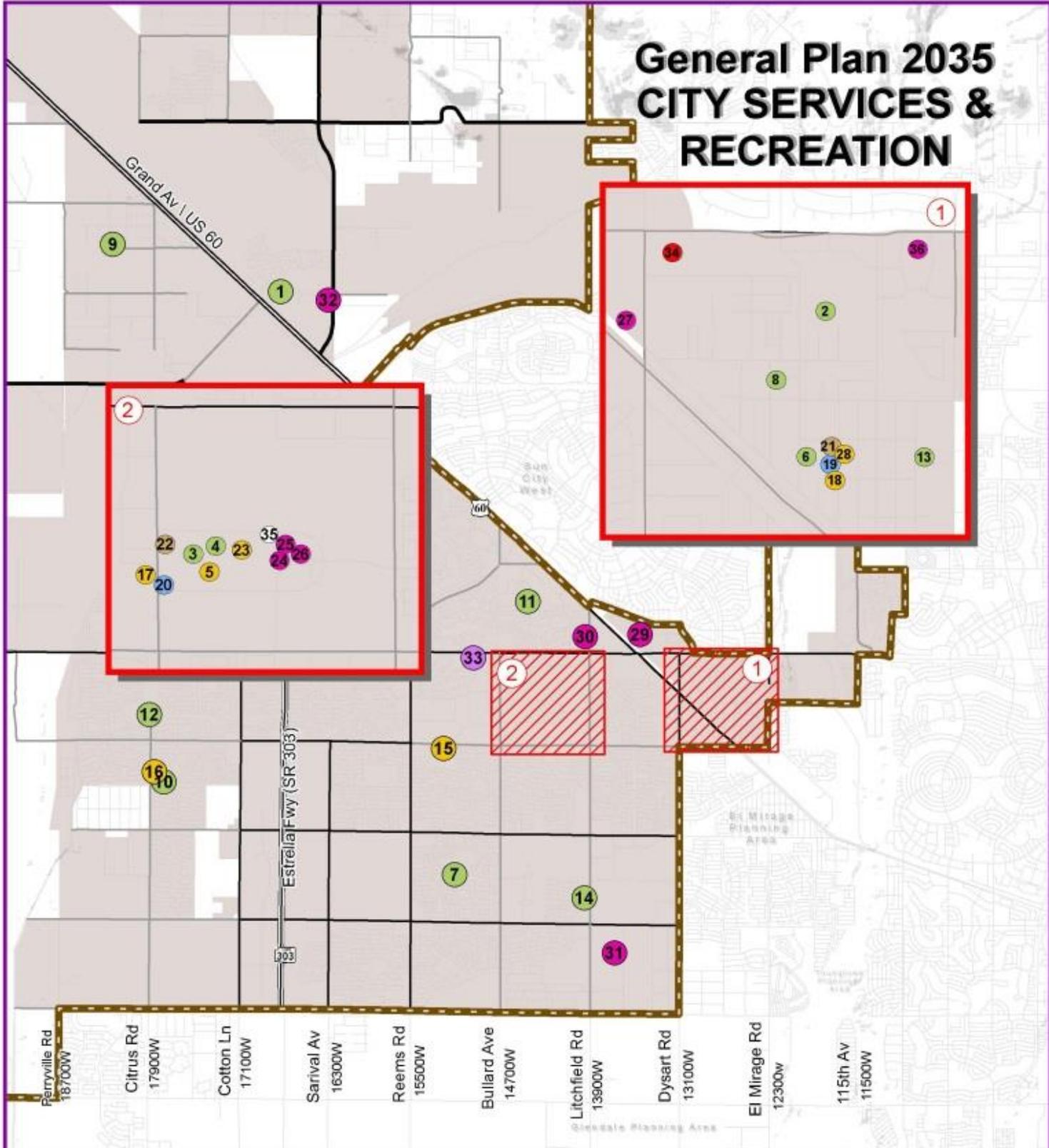
Goal 2: Public Buildings

Provide safe, accessible, and sustainable public buildings to meet the needs of the entire community.

Policies

1. Strategically locate and group public buildings, facilities, and parks to serve all areas in the City.
2. Provide accessible public buildings and facilities to all community members.
3. Incorporate green building standards in the updating and remodeling of City buildings and facilities.
4. Design city buildings and facilities to complement the character and context of the surrounding area.
5. Meet or exceed municipal facility industry standards for space/staff ratios with public buildings.
6. Focus primary community activities, city government, and administrative services in the Civic Center complex.
7. Design and construct public facilities to provide flexible functions that ensure adaptability with the changing needs of the community.
8. Explore ways to expand facilities availability for community events, classes, and other activities.
9. Conduct comprehensive analyses and develop improvement plans for long-term public facility replacement requirements and costs.
10. Ensure improvements of public facilities are consistent with the goal of environmental protection.

General Plan 2035 CITY SERVICES & RECREATION



Features			
Label	DESCRIPTION	Label	DESCRIPTION
●	Academy Community Park	1	Viviente Park
●	Biobehavioral Park	2	Country Club Recreation Center
●	Suprise Community Park	3	Sierra Montezuma Recreation Center
●	Suprise Dog Park	4	Suprise Recreation Center
●	Deerwater Park	5	Wilderness Recreation Center
●	Green Park	6	Hollybrook Pool
●	Horley (Marley) Park	7	Suprise Aquatic Center
●	Johnson Trackways Field/Habitat to Harmony	8	Hollybrook Library
●	Sanford 101 Parkland Park	9	Suprise Regional Library
●	Sierra Montezuma Park	10	Suprise Tennis and Racquet Complex
●	Stonewood Park	11	Suprise City Hall
●	Suprise Santa Community Park	12	City Court
●	Three Star Park	13	Public Safety Building
●	City Facility	14	Work/Maintenance Yard
●	Library	15	Senior Center
●	Museum	16	Public Works Yard
●	Park	17	Public Works Facility
●	Recreation	18	Waste Water Treatment Plant
●	Aquatics	19	Dead Creek Waste Water Treatment Plant
●	Post Office	20	Post Office
●	County Facility	21	Maricopa County Sheriff's Department
○	Other	22	Maricopa Valley Chamber of Commerce
		23	Teknopolis
		24	
		25	
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		36	

Boundaries	
Label	DESCRIPTION
==	Freeway
==	Expressway
==	Parkways
==	Major Arterials
==	Minor Arterials
90	US Highway
803	State Freeway
24	State Highway
■	Surprise Corporate Limits
■	Planning Area Boundary
■	County Boundary



0 0.475 0.95 Miles

Last Updated: 10/29/2015

Public Utilities Element

INTRODUCTION

The Public Utilities element of the Surprise General Plan 2035 provides an overview of the various utilities and infrastructure located within the Surprise planning area. It is crucial that the City of Surprise has the necessary public utilities and services to support new and existing growth and development, as well as adequate policies in place to determine what role the public sector plays in financing public services and facilities.

Growth in the City of Surprise and the Phoenix metro area requires expansion of facilities and infrastructure to serve the needs of the public. The City of Surprise will use various funding mechanisms to help in the creation of new and expanded services as well as in maintenance of existing services. The cost of maintenance is always the responsibility of the municipality; the cost of new services must have its “fair share” paid for by new development. To ensure City services are provided to all residents, the City must define goals and policies that determine what services will be required, the cost of those services, and if they can be paid for without undue burden on the taxpayer.

State laws require municipalities to review and report on the coordinated programs of public works for the ensuing fiscal year. For the City of Surprise, the review will be accomplished through an annual Capital Improvement Project (CIP) report to the City Council. This report will address ongoing public works and their compliance with the adopted Surprise General Plan 2035. The report is to include public real property acquisitions or dispositions, public construction, or vacation of public streets. Acquisitions or abandonment for street widening or alignment projects of a minor nature are excluded from such review. All CIP projects shall be in conformance with the Surprise General Plan 2035.

DISCUSSION

Utilities

The provision of infrastructure, utilities, and services, both private and public, is key to the continuing success of Surprise. Water, wastewater, stormwater, waste, energy, and telecommunications systems must be expanded to meet current and new development needs as well as the creation of sustainable neighborhoods in the future. In the process of expanding these systems it is the city’s desire to make the systems as efficient, environmentally friendly, and visually unobtrusive as possible. To achieve this it will be necessary to work with private providers to plan for the needs of future technology.

Efficient Utility Planning

Efficient utility planning is an important component of becoming a sustainable community. Well planned utility facilities can provide high quality service at affordable rates, lower construction costs, and reduced maintenance problems. The City has outlined concepts to aid in planning for effective utility coverage with minimal infrastructure. As with any service being provided by the City it is important to analyze all the factors involved in providing the service and ensuring it is sustainable over time. Many of the services have the same initial factors; cost of construction, timing, demand for service, etc. Utility provision also considers a density to cost ratio to determine if there will be enough users to justify the expansion or construction of a new

Public Utilities Element



utility. In some cases the density of population may be correct for the area but the provision of utilities may be too costly to provide to residents of the area without special consideration.

Density to Cost Ratio

Provision of services to more customers with fewer infrastructures makes a more efficient utility service. This is displayed by a density to cost ratio. Each service ratio will be different depending on costs associated to the service but the effect on all utilities is the same. As a neighborhood increases in density more people will require utilities. With the customers living closer to each other, or in a single building, utilities may need to provide fewer feet of cable, pipes, or wires although it may be at a larger size. This reduction in footage of installed utilities combined with the number of customers makes the cost of providing a utility lower at higher densities. For public entities the savings is a direct benefit to the public through better use of tax dollars, with private industries it affects their bottom line which makes a more profitable company and may affect their service rates.

Local Utilities—Water

Water service is provided by 11 water service providers in the Surprise planning area, and one of those providers is the City. Operation of water service providers is under the jurisdiction of the State of Arizona Departments of Water Resources (ADWR) and Environmental Quality (ADEQ). The City of Surprise strives to work cooperatively with these providers to see that the needs of Surprise residents are met.

Coordination of water providers

Due to the number of different water service providers in the Surprise Planning Area, variability in their service standards can create confusion for City residents. The City's goal is to see that all service providers provide a level of service that meets the needs of the resident. When practical, the City may seek to consolidate services in order to maintain

consistent service to its citizens. The City may also provide educational materials to inform the public of service conditions and goals.

Supply Locations

Water supply facilities and well sites must be constructed for the City to grow. Typically, these facilities are provided by the developer for the development being built. With proper planning, sites can be identified for an expanded area requiring fewer facilities to be constructed. Sites must consider aquifer levels and the quality of the water supplied. The Surprise Planning Area has several locations that will require treatment, such as arsenic, that may increase the size and cost of a well site.

Economic Development

For many smaller companies and businesses the development of utilities is not something they are knowledgeable about or prepared for. By providing utilities to vacant lots the City can remove one of the fears corporations or developers locating in the City may have.

Some companies and employers require a larger amount of water provided to their location. To target locations for economic development, the city will seek to work in concert with development to upgrade or provide water service prior to development. By providing the needed water infrastructure, a potential company is guaranteed the utility is available and may assist in the process of selecting Surprise as a location over other cities locally, nationally, and worldwide. By combining the desires of large companies (large tracts of land, water, power) into one location it makes Surprise a more attractive place to locate a new business.

Local Utilities—Sewer

Wastewater services in the City of Surprise are provided by both the City and EPCOR. Rural residences outside of sewer service areas will generally use septic systems until infrastructure is developed. The City of Surprise currently has two operating wastewater treatment plants. As

the city develops, there will be a growing need for wastewater treatment. New treatment plants being built will need funding either through a city bond issue, or started through developer funding of the project.

Reclaimed Water

City Council established Water Resource Management Policies pertaining to the use of Reclaimed Water. By using reclaimed water as a supply to recharge the aquifer first, the City can almost guarantee water for the future. The City also recognizes opportunities to utilize reclaimed water as a source for parks and lakes which will reduce the amount of water removed from the aquifers and treated to drinking water standards.

Sizing Infrastructure

With infill development in older parts of the City, there may be a need to resize sewer pipes to carry an increased capacity to handle higher densities of development. In areas of the city that are experiencing new growth, sewer lines should be sized to handle the ultimate capacity of the area to reduce the need for resizing at a later date.

Local Utilities—Stormwater

Currently, the City of Surprise requires on site retention of stormwater runoff that is created by new development and allows for historic stormwater flows to pass through these site. This adequately protects property against flood hazards created by development but also reduces negative impacts downstream that relies on the nature or historic flows.

Preserving Washes

As cities in the region have developed over time using onsite water retention, the area washes are slowly drying up. By retaining the water on site, the amount of water that has traditionally flowed through the washes has been reduced. By reducing this water amount, we are reducing the amount of plants and wildlife that can be sustained by the washes. By returning some amount of water back into the washes, the city can protect both property from flood hazards

and prevent the washes from drying out.

Urban Areas

To create more urbanized areas within the city it will become necessary to retain water off site. The density required to build an urban area does not allow for above ground retention of water. Underground retention of the water becomes difficult when it comes time to dig up a street or parking lot to repair the retention. Storm drains can easily direct the flow of the water to a master retention area or return the water to washes to protect multiple properties from flooding hazards.

Local Utilities—Power

Electrical power in the City of Surprise is provided by Arizona Public Service (APS), Electric District 7 and Maricopa Water District. APS provides power to Arizona from power plants throughout the state. These plants operate on: nuclear, coal, natural gas, hydroelectric, combustion engine, and some solar. Surprise can acquire its power through the electric grid supplied by any of these means. Power from these main plants provides the daily energy we use. During peak hours or spikes in demand, APS has many local power plants that operate through combustion engine generators. These plants turn on when needed to cover the excess demand. The most visible APS operations in Surprise are the power lines and occasional substations.

Location

Planning and integrating utility stations and the larger power lines must be a combined effort between the city and APS. Power line locations are planned first with the Arizona Corporation Commission which provides a large corridor (not an exact route) in which the power line route may be placed. The Corporation Commission looks at the need of the power line and other possible routes (through large corridors). Once the corridor is decided upon, the city can work with APS to aid in providing rights-of-way or easements to minimize the effect the power lines will have on access and visibility.

Public Utilities Element



Environment: Peak hour consumption

One of the immediate ways to save fossil fuels used for generating energy is by changing personal energy use to off-peak hours. APS recommends running appliances such as washers and dryers during these off-peak hours. By reducing the energy use during peak hours, APS can reduce the amount of time combustion generators must be used to cover the excess energy requirements. These generators only operate to cover peak energy loads, and so by reducing personal use, the fuel use for these generators can be reduced. The City of Surprise can lead by example, and partner with APS for more awareness of this issue.

Creation of renewable energy plants

Renewable energy in the form of solar, wind, and water power is the direction being taken by many power providers to become more environmentally friendly and reduce United States dependence on fossil fuels. With its constant sun, Arizona is a prime location to develop solar power. The largest issue with developing solar energy is the initial cost of the infrastructure and the amount of land needed to provide enough energy to make the project feasible. The City of Surprise can work with APS to reserve locations for future solar or other power plants.

Economic Development

Just like water, power is a utility that large companies desire before they locate to a city. To aid in the development of large vacant lots or the creation of an employment park the city of Surprise should work with APS to site local power plants or substations as needed to provide for the potential energy needs of these future companies.

Local Utilities—Telecommunications

Telecommunications in Surprise is supplied by Cox and Qwest. These companies provide the privately owned infrastructure and fiber optics that supply phone, cable, and wireless access to the area. Other long distance and phone

providers (except cell) lease service space from the company that owns the actual utility to provide service to their customers.

Cellular service is provided by several companies through cell towers. These towers can stand alone (like a utility pole), be disguised in the form of a mono palm, can be hidden within a tall structure (a church steeple), or can be located with other equipment such as the stadium lighting at a local school.

Cell Tower Location

As growth occurs, more cell towers will be required throughout the City and planning area. To minimize the visual impact and number of towers, the City can work with cell providers to co-locate on existing towers and plan in advance for siting new towers.

Economic Development

Without a telecommunications network that can handle the computer and phone traffic required by a large company the City of Surprise will not be able to attract corporations to our city. Companies today look for communications networks not only for their immediate needs where they locate, but also for wireless services around the area for potential telecommuters and meetings outside of the office. The City can assist in attracting business by reviewing the latest technologies and determining what should be pursued. The City can also partner with communications providers to build needed infrastructure.

Technology

The rapid advance of technology has created many benefits for society. It allows faster and more efficient work, better management of information, wireless communication, and more. Modern technology can no longer be viewed as just a tool. Cities with higher technology bases have advantages in economic development, draw more of the “creative” class to the community, can provide better education to its residents, and have a more informed citizenry. The

potential benefits of technology can be compromised if it is used merely to entrench old processes rather than used creatively to explore new and redesigned methods of providing services.

Economic Development

To take advantage of the benefits provided by technology infrastructure the City must become a leader in its development and deployment. This will be accomplished by mobilizing both public and private sector investment to develop programs and incentives to create the technology that is in demand. This will bring employers and can create opportunities for other technology related development in the form of technology education, retailers, and service providers. The business and investors that will create and locate in Surprise will look not only at how technology can enhance their business, but how technology will improve the quality of life of their employees.

Quality of Life

Technology today improves the quality of life of everyone by connecting people, providing information, and making lives easier. The advent of cell phones has made it easier for people to stay in touch with friends and family no matter where they are in the City. By improving on this technology and working to place infrastructure for more communication technology the residents of Surprise will be able to collaborate with each other, businesses, and the City through phones, computers, and the next new technology, no matter where they are in the city. This same network can provide people with information about events in the City, warnings of road closures, detours, and emergency information.

Technology not only will be able to provide better communication, but technology built into city systems such as streets will be able to provide real time data to allow for a smoother commute to work or immediately report traffic accidents. Finally technology placed in homes and businesses can be used to make life easier by providing better mobility for individuals with disabilities, increasing safety through fire prevention systems, and reducing crime with

better monitoring systems.

Roadways

Street maintenance is currently scheduled through the city public works department. Maintenance of streets is not only repair of potholes, but also includes upgrading, resealing, and cleaning. In Surprise not all streets are maintained by the City. Private streets are maintained by the organization or group in charge of them. In cases where these private streets are not maintained and become a hazard to residents, these streets should be reviewed by the City to have the maintenance taken over or remove the hazard through other means.

Scallop Streets

Scallop streets are roads that change the number of available lanes, often reducing to one or two lanes for several miles and then returning to a wider roadway. This occurs when only half the street is built by the developer of a property. This presents many issues for the City in the form of traffic flow, street maintenance, and timing of street construction. The reduction of lanes is not only an annoyance to the motorist; it also reduces the capacity of the street in the same manner a funnel reduces water flow. With the increased traffic on the few existing lanes the street will wear faster than normal and require more frequent maintenance. To resolve the issue the City can wait for a developer to build the neighboring parcel or build the road with municipal funds. If the road is built with city funding, methods of repayment should be considered.

Longer Street Life

To prolong the life and reduce maintenance costs on streets, the City should review construction methods and techniques. This can potentially be done through seal methods, initial construction practices, and new surfaces such as rubberized asphalt. These initial construction practices and maintenance techniques can also be carried over to private streets to help reduce maintenance costs and the potential for future

Public Utilities Element



hazards when roads are not maintained.

Solid Waste

Surprise's growth will increase the quantities of both non-hazardous and hazardous solid wastes generated in the area. An effective and comprehensive long-range waste management plan for the region will ensure that storage, collection, disposal, and recycling of wastes occur in an environmentally and economically acceptable manner. Solid waste transfer and disposal facilities for Surprise are owned and operated by Waste Management while residential solid waste pickup and disposal are the responsibilities of the City. Currently, commercial and industrial waste is handled by private haulers, Parks and Sons. Hazardous waste is handled by a private contractor who is certified to handle hazardous material. At this time Waste Management owns and operates the Northwest Regional landfill and contracts the operation of waste transfer stations that provide service to Surprise residents.

The Arizona Department of Environmental Quality regulates solid waste and disposal including:

- Assuring the proper handling, storage, treatment and disposal of wastes
- Promoting pollution prevention and recycling
- Responding to environmental emergencies
- Reviewing and approving construction plans for landfills and special waste facilities
- Investigating complaints and violations for Arizona's solid and hazardous waste laws.

Landfill Lifespan

On average, Surprise produces approximately 365,000 tons of waste every year. With a capacity of 92,000,000 tons, the Northwest Regional landfill has sufficient volume to serve Surprise until approximately 2090.

To promote the lifespan of the landfill the City should educate residents to increase recycling

and lower the amount of waste deposited in the landfill. By reducing the recyclable waste the landfill can use the extra space for waste that cannot be recycled.

Recycling

Recycling not only reduces the solid waste taken to landfills, but provides a source of raw materials for companies that can use it without using natural resources like trees. Surprise annually contributes 7,000 tons of recyclable waste which is only about 2% of the total solid waste generated. Currently Surprise only offers the curbside recycling program. Since increasing recycling is a major goal for the City Surprise is looking at the possibility of drop-off sites as well.

Expansion of Service

The collection routes are currently managed through manpower, vehicles, and number of routes that can be accomplished on different days. With future development, the City of Surprise will need to expand its fleet of collection vehicles and manpower to allow for more routes.

GOALS AND POLICIES

Goal 1: Infrastructure Investment

Maximize City investment in infrastructure.

Policies

1. Coordinate with private utility companies and other public services to plan infrastructure, facilities, and services in undeveloped parts of the planning area.
2. Provide affordable water, wastewater collection, treatment, and water reuse.
3. Research locations and scope for future technology based infrastructure.
4. Create an efficient service network through collocation of cellular providers.

Goal 2: Solid Waste Disposal

Ensure Surprise's solid waste disposal needs are met while maximizing opportunities for waste reduction and recycling.

Policies

1. Actively pursue and support programs and activities that reduce the amount of waste that must be landfilled.
2. Encourage/require new or remodeled multi-family residential and all non-residential development to incorporate attractive and convenient interior and exterior storage areas for recyclables.
3. Continue to encourage waste reduction and recycling at home and in businesses through public education programs, such as informational handouts on recycling, yard waste, wood waste, and hazardous waste.
4. Consider development of a residential and commercial food waste composting program.
5. To the extent possible, purchase goods containing recycled materials for City use.

Goal 3: Solid Waste Recycling

Surprise should encourage solid waste recycling systems that reduce the volume of waste.

Policies

1. Encourage marketing of containers which are biodegradable or recyclable; support legislation which prohibits distribution and sale of beverages in non-recyclable cans or non-returnable bottles.
2. Undertake educational programs promoting voluntary collection of recyclable items and educate customers to accept products made from reclaimed material.
3. Encourage businesses to take a more active role in recycling and cogeneration techniques.
4. Periodically evaluate the feasibility of a recovery plant to reutilize valuable materials from municipal solid waste and to generate

energy for local use or sale.

Goal 4: Utility Corridors

Land use decisions in and adjacent to utility corridors should be fiscally and environmentally responsible and aesthetically acceptable to the community.

Policies

1. Coordinate with other jurisdictions when utility corridors cross jurisdictional boundaries.
2. Encourage utility providers to fully utilize existing corridors before planning alignments for new corridors.
3. Planning and alignment selection for new corridors should be done in full cooperation between utility companies, local jurisdictions and area stakeholders.
4. Encourage various utility providers to share existing corridors before developing new corridors.
5. Develop and maintain resource maps that indicate the general location of existing and proposed utility corridors.
6. Notify utility providers of potential inconsistencies between proposed system plans and existing or proposed land uses; and work with them to find acceptable solutions when inconsistencies exist.
7. Encourage new utility corridors to be located near major roadways rather than locations internal to Surprise neighborhoods.
8. Notify utility providers of any potential negative environmental impacts of proposed new utility corridors.
9. Encourage utility providers to preserve or relocate native plants located in the corridor and re-vegetate any areas that were cleared for construction of the corridor.
10. Ensure utility providers to grant reasonable easements within and across corridors.
11. Allow for passive and non-motorized recreational use of utility corridors, when practical.
12. Encourage utility providers to minimize corridor width.

Public Utilities Element



13. Promote corridors that are located in areas with lessened visual impact.
14. Allow for residential land use density transfers away from locations within 1/8 mile of utility corridors.
15. Research and provide opportunities along corridors that enhance the corridor.
16. When corridors traverse State Lands, intensify and/or increase development potential in other areas to ensure fiscally responsible planning.

Goal 5: Technological Innovations

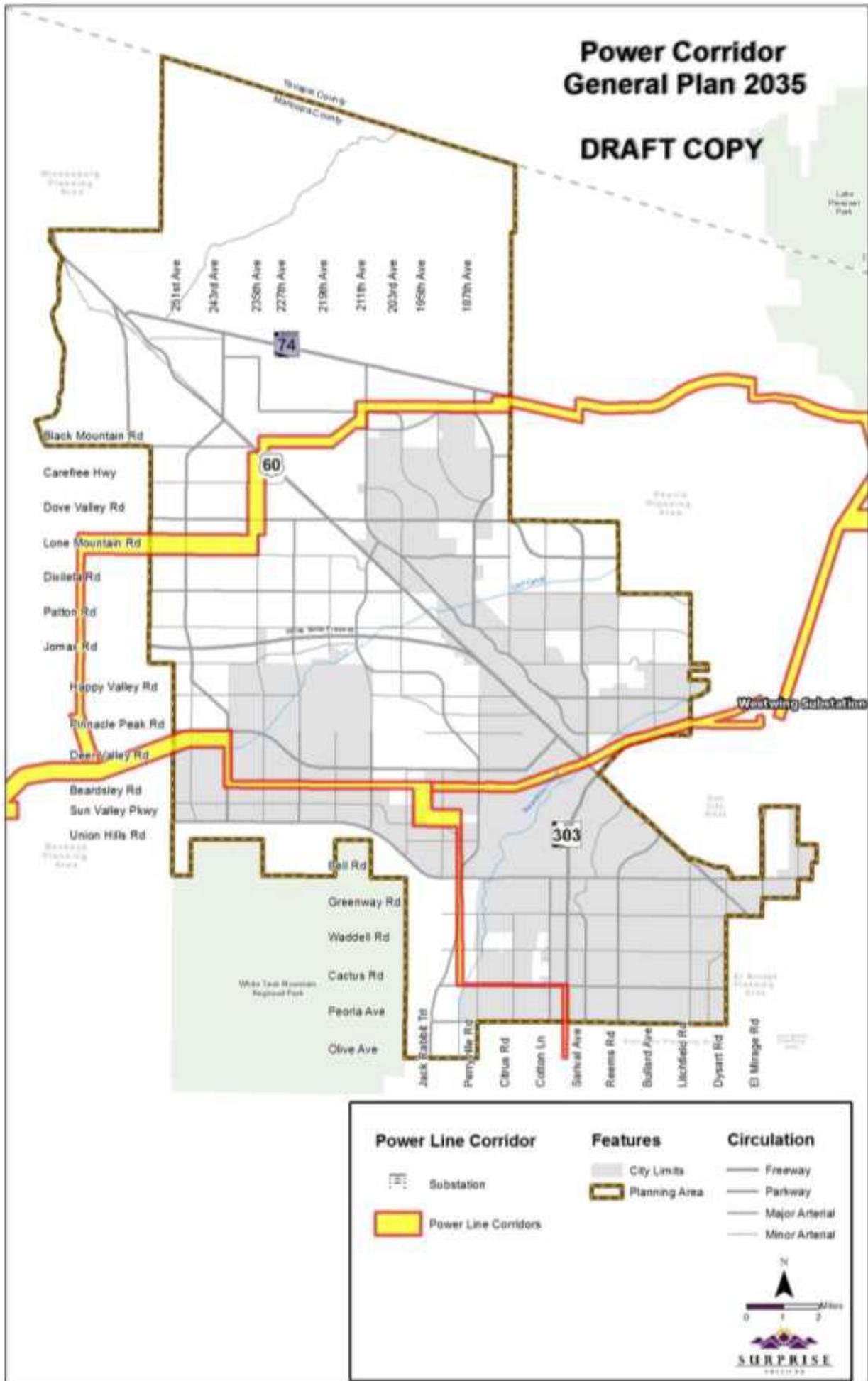
Surprise should be a leader in technological innovation.

Policies

1. Create regulations and incentives to provide resources for advanced technology and communication.
2. Promote government and private sector programs for digital democracy to expand citizen participation in decision making.
3. Encourage innovation in public and private sectors.
4. Research technologies place in building codes to provide a safer community.
5. Foster innovations in technology to enhance public services.

Power Corridor General Plan 2035

DRAFT COPY





Health and Safety Element

INTRODUCTION

Central to any public plan is the importance of protecting the health, safety, and security of the citizens. The Health and Safety Element addresses community health as well as the protection of the community from any unreasonable risks associated with the effects of geological hazards, including subsidence and slope instability; flooding; wild land fires; hazardous materials and waste; human-induced hazards; and general emergency. By providing guidance to implement preventative and reactive measures for integration within planning activities, the city can promote the health, safety, and welfare of its citizens more effectively and more comprehensively. The health and safety element of the Surprise General Plan 2035 is divided into three distinct sections: community wellness, prevention, and response.

DISCUSSION

Community Wellness

Community wellness is a topic of increasing concern in communities across the nation. As the “baby boomer” population reaches retirement age, more facilities and services will be required to address the needs of an aging population. With aging, there is also an increase in the number of people with disabilities. The issues associated with this topic go beyond the location and services provided by public and private medical institutions. The overall health of a community depends on multiple factors, including the environment around them. A healthy environment reduces health risks and promotes better lifestyle choices. Factors that are important to a healthy environment and community wellness include the following:

Safe neighborhoods and public spaces

Safety-related issues are often at the top of the list of concerns by neighborhood residents. People want to feel they are safe when they are walking, biking, or traversing their neighborhoods and community. The way the community is designed can play an enormous part in the perception of safety in a community. As a result, the design of a community can hinder or

enhance people activities within a community. Land use decisions play an important role in promoting one’s ability to engage in everyday activities within the neighborhood or community. Equally important is the role that perception can play in creating safe neighborhoods. Design techniques can help minimize perceived safety problems.

Such techniques include creating neighborhoods and communities that provide integration and balance of uses; viewing streets as an amenity, requiring front porches, and other semi-public areas to encourage community interaction. Crime Prevention Through Environmental Design (CPTED) principles play a vital part in promoting safe neighborhoods with the emphasis on natural surveillance, territorial reinforcement, natural access control, and hardening target areas. Safescape concepts also highlight the importance of design in creating safe communities.

Access to public transit

Using public transit and active transportation options such as walking and biking reduces vehicle miles traveled, vehicle emissions, respiratory disease, and exposure to environmental contamination due to fuel and oil spills.

Safe transportation choices

Surprise has built miles of roadways for travel by vehicles. These roadways often lack adequate sidewalks, have lanes that are too narrow to share with bicyclists, and feature few, poorly marked, or dangerous pedestrian crossings. Complete Streets are streets that are designed for multiple users including pedestrians of all ages, bicyclists, people with disabilities, and cars and reduce risk of pedestrian and bicycle injuries. A commitment to community wellness requires that there is safe access for all users. It is imperative that pedestrians, bicyclists, motorists, and bus riders of all ages and abilities are able to safely move along and across a complete street.

Access to recreation and open space

Access to a park directly affects the use of parks for recreation and physical activity. Health benefits of physical activity may include a reduced risk of premature mortality and reduced risks of heart disease. Regular participation in physical activity can also reduce depression and anxiety, improve mood, and enhance ability to perform daily tasks. The availability of school grounds for community recreation after school and on weekends can promote physical activity, social cohesion, and neighborhood safety.

Access to healthy foods

A grocery store in a neighborhood can allow for greater fruit and vegetable consumption; reducing the prevalence of overweight and obesity, and incidence of hunger. Farmers' markets provide another source of fresh, locally produced fruits and vegetables, and are particularly important in areas poorly served by full service grocery stores. On the other hand, where there are high numbers of fast-food restaurants compared to grocery stores, there are often higher rates of health issues.

Access to medical services

The availability of good primary health care has a major role in the prevention of hospitalizations from chronic and communicable diseases. The availability of public transportation to community health facilities affects access to quality, affordable, reliable health care. Locating health facilities near transit can reduce vehicle trips and driving with benefits to air quality, community noise, and injuries. It also provides access to the greatest number of people.

Access to quality affordable housing

Lack of adequate affordable housing may force families to seek any form of shelter which, in turn, compromises their health and well-being. This can result in overcrowding, overpayment, substandard housing and longer work commutes, and other deficiencies. A wider range of housing sizes (number of bedrooms) that are affordable could alleviate overcrowding and lessen related negative health impacts.

Access to life-cycle housing

Creating designs for a lifetime, for any need, so families can stay in their home as special needs arise or change — and be able to effectively market the home should circumstances require moving — are key elements to providing life cycle housing and accessibility. Principles of Universal Design and Visitability in housing design can create homes that are able to accommodate a wide diversity of housing needs, from families with young children to families with elderly or disabled members. For example, a low bar with leg room underneath in the kitchen can be used by children today and a wheelchair user later. Grab bars beside the bathtub can be used by toddlers, teens or adults with a temporary need such as a sprained ankle, and by elderly residents with a more permanent need. Universal design also means wider door openings that can accommodate a wheelchair, and a five foot turning radius in bathrooms and kitchens.

Health and Safety Element



Principles of Universal Design were developed to guide a wide range of design disciplines including environments, products, and communications. The Center for Universal Design identified design principles that include:

- Equitable use.
- Flexibility in use.
- Simple and intuitive.
- Perceptible information.
- Tolerance for error.
- Low physical effort.
- Size and space for approach and use.

Applying these principles can create homes that people are able to live in throughout their life.

Access to economic opportunities

Unemployment and lack of sufficient economic opportunity is a major factor in all health outcomes. Attainment of self-sufficiency income predicts better health, improved nutrition, lower mortality, and indirect health benefits such as reduced communicable diseases, and reduced community violence.

Connected and complete neighborhoods

A healthy community promotes neighborhoods with daily goods and services within walking distance. Being able to walk to neighborhood goods and services promotes physical activity, reduces vehicle trips and miles traveled, and increases neighborhood cohesion and safety. Healthy neighborhoods are those in which more than 50 percent of the typical daily public and retail services are located within one-quarter of a mile of their homes.

Quality environment

Studies have found consistent associations between living in proximity to a busy roadway and respiratory disease symptoms including asthma and lung function measures. Diesel particulate matter has acute short-term impacts and a disproportionate effect on the elderly, children, those with illnesses, or others who are sensitive to air pollutants. On the other hand, living in

greener environments is associated with reduced self-reported health symptoms, better self-rated health, and higher scores on general health questionnaires. A quality environment focuses on the well-being of the communities, and on the principle that everyone is entitled to protection from the environmental hazards.

Sustainable development and practices

A healthy community promotes sustainability and environmental stewardship through the design of its built environment. Reducing electricity and natural gas usage results in reduction in climate change and air pollution emissions, reduction in the hazards, and use of environmental resources necessary to produce and transport energy. This subsequently results in improved air quality and lower rates of respiratory illness. Green businesses reduce occupational and environmental exposures to toxic chemicals and provide economic opportunities. Recycling and composting helps improve air, land, and water quality, as well as reduce energy demands associated with air pollution and greenhouse gas emissions.

It is commonsense that major decisions regarding development and planning should be made with consideration for each of the twelve factors. After all, the factors are directly related to the public's health. However, mechanisms and mandates for such consideration do not exist or are present in limited capacity. Providing such mechanisms will require a fresh look at the way decisions are made.

Prevention

Both natural and human induced hazards pose a threat to life and property, and may necessitate costly public improvements. Prevention of both natural and man-made hazards is the first step in making the City of Surprise a safer community. These hazards may be a result of geological hazards to natural events to public hazards or may arise from development such as: site layout, faulty construction, high noise areas, and military hazard zones. The City will

make all efforts to reduce or eliminate these hazards. Examples of such hazards include the following:

Natural or Geological Hazards

Geological hazards, such as subsidence, or unstable slopes and soils may present a threat to life and property and necessitate costly public improvements. Surprise should establish methods to identify the hazard areas and to review and regulate development where such hazards may occur.

Surprise is subject to significant weather extremes due to its Sonoran Desert location. Very high summer heat, powerful summer thunderstorms, soaking winter rains, and the potential for flooding are all typical in Sonoran Desert locations. Planning efforts must consider the adequacy of the plan in relation to the weather extremes.

Man-made Activities

Hazards resulting from human developments or activities such as crime, faulty construction, poor site layout, improper location of land uses, airport approaches or high noise areas, ground water overuse, or the use, storage, or disposal of explosive, flammable, toxic or other dangerous materials may pose a threat to life and property and may necessitate costly public improvements. To reduce or eliminate these hazards, Surprise needs to continue to establish measures to identify hazardous areas and to review and regulate development where such hazards occur.

Hazardous Materials

Many man-made substances can be hazardous to health. The increased use of such materials has increased potential hazards and actual damage. Public concerns have led to tighter controls on the production, transport, storage, sale, and use of hazardous materials and, particularly on the handling and disposal of concentrated residues and wastes produced by in-

dustrial operations.

Industrial sites where materials such as paint, rubber products, oil, tar, solvents, and pesticides are used have the potential to contaminate the environment. Hazardous materials, such as paints, solvents and cleaning compounds, are also present in small quantities in many homes. The proper disposal of these materials is important to sustaining a clean and healthy environment.

Fire

Fire can arise from natural or manmade sources. Fire hazard regulations are intended to minimize on-site property damage and personal injury, avoid damage to adjacent properties, and reduce the impact of fire suppression activities. Increasing "built-in" fire protection in new construction is the most cost effective way of achieving these objectives. All development must have adequate water available for fire suppression, whether from a hydrant and community system or from an on-site storage tank.

Where development is permitted in the midst of natural vegetation, the fire hazard must be further mitigated by other measures. The locations of subdivision lots and building envelopes can maximize access by emergency vehicles. Preventing the spread of fires to and from structures also requires removal of surrounding vegetation and clearing of fuel breaks.

Noise

Noise can be annoying and physically harmful to human beings and animals. Exposure to intense noise can result in hearing damage. Sources contributing to the potentially harmful noise levels include aircraft, motor vehicle traffic, railroad traffic, open industrial operations such as gravel quarries, shooting ranges, and various construction noises.

Health and Safety Element



Response

Providing medical response and protection against crime and risk of fire are primary concerns for city emergency services. Safety for both crime and fire prevention can be increased through land use planning and community design. Fire hazards are further reduced by continued training, application of Fire and Building Codes, and regional cooperation. For the City of Surprise the primary concern will be maintaining efficient services by locating new facilities as the community grows. Other methods that are used to facilitate effective response include:

Emergency Preparedness

Emergency (disaster) preparedness planning consists of three major components: government actions, private organization emergency response actions, and individual or small group actions. Emergency preparedness planning recognizes that in the first 72-hours after a major disaster people must be self-sufficient. Governments cannot provide all of the services that may be needed. Therefore, disaster preparedness involves planning efforts by local government, private organizations, and local groups to identify resources, provide public awareness, and formulate plans about what to do in an emergency situation.

The plans that are developed must have provisions for communications, supplies, health care, law enforcement, and disaster relief. In addition, the plans must be revised and updated on a regular basis due to rapid growth and development within the planning area.

Education

Block Watch and other community policing programs that involve citizens improve safety, build goodwill, and lessen the demand on City resources are important

GOALS AND POLICIES

Goal 1: Healthy Community

Surprise should strive to be a healthy community.

Policies

1. Continue to identify and reduce barriers to create an accessible community for all.
2. Create education programs to promote good personal health.
3. Building codes should promote a high quality of life for people of all abilities.
4. Encourage wellness through preventative health options.
5. Increase options for aging in place.
6. Promote the design of walkable, inclusive communities.

Goal 2: Hazards

Minimize threats of natural and human-induced hazards.

Policies

1. Strive to minimize the hazards of flooding from rivers, washes, and stormwater.
2. Protect the community from geological instability and subsidence.
3. Prevent unnecessary exposure of people and property to risks of damage or injury from hazardous materials.
4. Promote education on the proper handling, storage, use, and disposal of hazardous materials.
5. Promote policies and development standards that aid in prevention of natural and human-induced hazards

Goal 3: Community Preparedness

Ensure the community is well prepared to respond to natural and human induced catastrophic events.

Policies

1. Prepare and adopt an emergency evacuation plan for natural and man-made disasters.
2. Conduct timely reviews to ensure an effective update of the City's emergency response and recovery plan to reflect current risk/threat awareness.
3. Provide an integrated approach to planning and preparedness for emergencies and disasters.
4. Support policies and development standards that allow for appropriate response by emergency services.
5. Continue to work with local and regional entities to promote an effective and efficient communication system.
6. Ensure clear, accurate, and timely communication of critical information regarding events, safety, and assistance.
7. Ensure there are adequate resources for training of emergency response personnel.
8. Promote protection and preservation of natural drainage systems as the primary emphasis of City stormwater management efforts.
9. Ensure planned land development and building codes are designed to reduce avoidable property damage from storms/flooding and other natural events.
10. The City shall continue to coordinate its regional flood control planning with the Maricopa County Flood Control District and require adequate retention for new development.
11. Promote community awareness of risks associated with flooding.
12. Ensure adequate resources and training for critical staff positions.
13. Construct City facilities that will remain operable during and after a major catastrophic event.
14. Collaborate with the medical community in evaluating the effectiveness of the emergency medical system.
15. Effectively coordinate response of City staff and apply City resources to rapidly restore

or- der and begin the process of recovery.

16. Provide adequate access for emergency vehicles, particularly fire fighting equipment, as well as secure evacuation routes.
17. Establish an effective relationship with federal, state, and local agencies designed to support the community in times of emergency.
18. Coordinate emergency efforts with the Arizona Department of Emergency Management, Maricopa County Department of Emergency Management, agencies, and jurisdictions to provide an effective and coordinated response to any emergency/disaster.

Goal 4: Hazardous Materials

People and property should not be exposed to risks of damage or injury from hazardous materials.

Policies

1. Route the vehicular transport of all hazardous materials and waste products away from residential neighborhoods in accordance with the adopted and incorporated federal hazardous materials transportation regulations.
2. Periodically update the adopted hazardous materials truck route through the City.
3. Support state and federal legislation that strengthens safety requirements for transporting hazardous materials.
4. Collaborate with other regulatory agencies to assist people with their concerns and needs related to the use, storage, handling, and safe disposal of hazardous materials.
5. Prepare strategies and plans for evacuating inhabitants and handling emergencies involving hazardous materials.
6. Educate the public about the risks of hazardous material within their homes and businesses, and vehicles that move hazardous waste throughout the community.
7. Continue to equip, train, and maintain a level one response team within the Surprise Fire Department.

Health and Safety Element



Goal 5: Risk Reduction

Reduce risks from natural and man-made fires.

Policies

1. Maintain appropriate front, side, and rear yard setback requirements to minimize the threat of a spreading fire.
2. Evaluate, monitor, and remove dilapidated and underutilized structures that pose a fire threat in the City.
3. Encourage automatic sprinkler systems in all buildings, including single-family dwellings.
4. Consider the severity of natural fire hazards, potential damage from wild land and structural fires, adequacy of fire protection, and mitigation measures consistent in the review of projects.
5. Consider requiring adherence to *International Wildlife Urban Interface Code* standards in the design of new development in northern area of the City.
6. Conduct annual fire inspections of all commercial occupancies to ensure adherence to the City-adopted Fire Code.
7. Continue evaluating the feasibility of requiring that all newly constructed residential occupancies contain residential fire sprinklers.
8. Require on-site detection and suppression, including automatic sprinkler systems, where available services do not provide acceptable levels of protection.
9. Continue to support automatic aid agreements with municipal neighbors in the suppression of fire in the region.
10. Collaborate with the business community to establish partnerships in fire prevention efforts.
11. Emphasize public education programs that focus on fire prevention.
12. Utilize highly trained personnel currently assigned and trained in wild land tactics in the Fire Department.

Goal 6: Emerging Mitigation Techniques

Employ broad interdisciplinary-derived methods and emerging techniques to minimize risks.

Policies

1. Utilize the principles of *Crime Prevention through Environmental Design* (CPTED) to enhance the safety of proposed and existing developments from crime.
2. Consider “Safescape” concepts in development review of new projects.
3. Collaborate with private and public health agencies to promote health and injury prevention as prevention strategies.
4. Promote the use of alarm systems in all non-residential buildings.
5. Consider the use of photo-radar to monitor dangerous traffic intersections.
6. Keep pace with the growth of the City and the associated enforcement challenges.

Goal 7: Communication

Ensure the dissemination of critical information is clear, accurate, and efficiently communicated when needed.

Policies

1. Enhance the effectiveness of the emergency response system by connecting people with appropriate non-emergency agencies.
2. Provide pro-active education to the community with special emphasis on high risk populations.
3. Assist in the development of emergency preparedness curriculum and training materials for schools and day care centers.
4. Encourage business and industry to plan for recovery from catastrophic events.
5. Provide guidance to citizens on disaster recovery through brochures, talks, and other public information methods.
6. Implement educational seminars, community exercises and emergency response drills.