City of San Luis

General Plan

ACKNOWLEDGMENTS

The ***San Luis General Plan*** is a comprehensive approach to community development that involved many citizens and stakeholders working together to create this important document. The City of San Luis recognizes the importance of community involvement and encourages involvement in the general plan's implementation. The many dedicated individuals who provided valuable input throughout this important process have been critical to the document's successful completion. The following entities and individuals were instrumental in the preparation of the ***San Luis General Plan.*** The complete list of participants is included in Appendix A.

San Luis City Council

San Luis Planning and Zoning Commission

San Luis Action Team

San Luis Economic Development Commission

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1.0 INTRODUCTION

1.1 WHAT IS THE GENERAL PLAN?

The Arizona Revised Statutes require that each city adopt a comprehensive, long-range General Plan to guide the community's physical development. The purpose of the General Plan is to:

- *Express the community's vision*
- *Identify the community's goals and development priorities*
- *Serve as a policy guide for local decision-making*
- *Fulfill legal requirements created by state law*

The ***San Luis General Plan*** process began in January 2000 and is intended to meet the 1998 Growing Smarter Act that the Governor signed into law. Due to the tremendous growth of San Luis and the surrounding area, the City embarked on this yearlong, community-wide planning process. The process involves considerable public dialogue and input. The ***San Luis General Plan*** is a statement of policy and an expression of the community's vision for the future. The plan is a tool to help guide and shape the planning areas' physical development. The mission of the General Plan is to achieve a sustainable future for the community through sound growth management.

The ***San Luis General Plan*** was adopted by the Planning and Zoning Commission on November 19, 2001 and by the City Council on December 27, 2001. The citizens of San Luis ratified the City Council's approval at a general election on March 19, 2002.

The ***San Luis General Plan*** is more than a map depicting proposed land uses. The goals and policies are presented in a series of interrelated "elements." These elements provide the framework for the City's policy direction. The ***San Luis General Plan*** includes the following elements:

Environmental Planning provides an analysis of the General Plan's potential implications of the General Plan on air quality, water quality, and natural resources.

Land Use provides the proposed general distribution, location, and extent of land for housing, business, industry, public facilities, and open space.

Growth Area identifies those areas, if any, that are particularly suitable for planned multi-modal transportation and infrastructure expansion and improvements designed to support a planned concentration of a variety of uses. The Growth Area Element is included in the Land Use Element.

Transportation/Circulation identifies the general location and extent of existing and proposed roadways as well as other forms of transportation including transit, pedestrian, etc.

Public Facilities and Services/Cost of Development identifies policies and strategies that the City of San Luis will use to ensure an efficient infrastructure system and require development to pay its fair share toward the cost of additional public service needs generated by new development.

Parks and Open Space presents an analysis of forecasted needs and identifies potential locations and policies to promote a regional system of integrated open space and recreational resources.

Implementation Program outlines how the General Plan will be reviewed, amended, and updated on a regular basis.

The ***San Luis General Plan*** is intended to guide development over the next 20 to 25 years. However, all cities and towns are required to update their general plan once every ten years. The plan is intended to be a usable, working document that is responsive to changes and unforeseen opportunities that are natural in a dynamic environment. The General Plan is often confused with "zoning" actions. It is important to recognize that the General Plan provides for long-range "general" policy direction related to physical development whereas zoning is a specific legal action related to land classification governed by the zoning ordinance. However, the General Plan does not change any zoning until a formal request is made either by the landowner or initiated by the City. The Implementation Chapter of this document outlines when an amendment to the General Plan is required prior to changing zoning.

What the General Plan is…	***The General Plan is not…***
A statement of City policy	A specific plan for a development project
A guide to decision-making	A zoning ordinance
A framework for more specific planning	A rigid/static document
A tool for education/communication	A capital improvement plan or city budget
A legal mandate	A project master plan
A way to provide a long-range perspective	
A way to improve the quality of life	

1.2 THE PLANNING AREA

The planning area for the ***San Luis General Plan*** stretches well outside the current incorporated boundaries of The City of San Luis. The planning area is intended to include areas for future anticipated annexations and areas of influence. The planning area includes approximately 60 square miles, while the City's incorporated boundary is approximately 30 square miles. Figure 1.1, San Luis Planning Area, depicts the current incorporated boundary for the City and the planning area for the General Plan.

1.3 SAN LUIS WITHIN THE REGION

The City of San Luis lies in the southwest corner of Arizona on the United States-Mexico Border. To the south of San Luis, Arizona, is the City of San Luis Rio Colorado, Sonora, Mexico. West of San Luis, Arizona, across the Colorado River, is the State of Baja California del Norte, Mexico. The City of Yuma, Arizona is located to the north of the planning area.

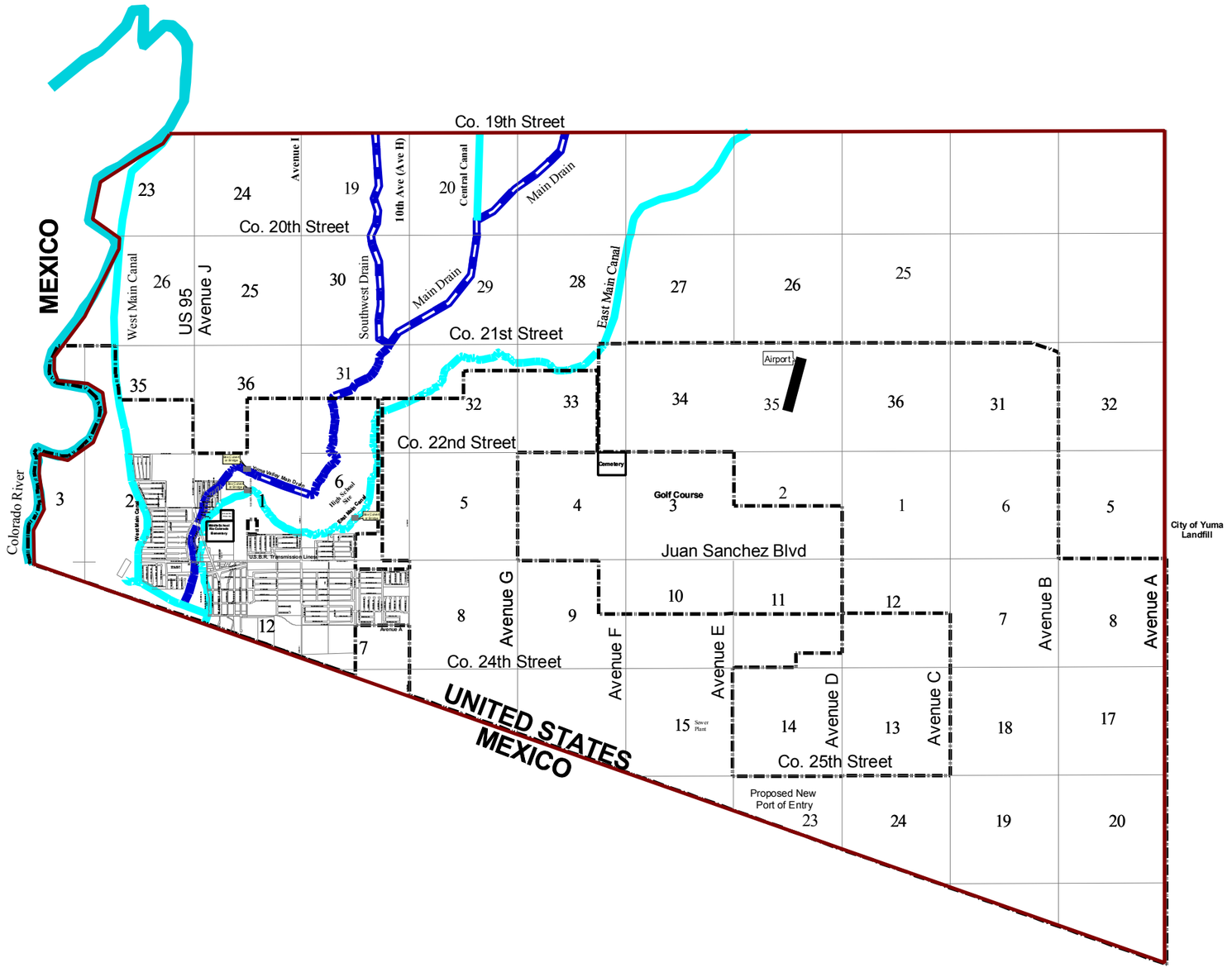
San Luis was established in 1930 with the opening of the U.S. Port of Entry, and its population grew slowly for approximately the first 50 years. However, since incorporation in 1979, San Luis has experienced tremendous population and commercial growth. Today, the City of San Luis is the fastest growing community in Yuma County, nearly doubling in population between 1990 and 1995. Its proximity to Mexico and the booming maquiladora industry has been influential in this growth, which is expected to continue to outpace the rest of the County through 2005.

1.4 PROCESS WORK PROGRAM

The ***San Luis General Plan*** began in January 2000 when the first committee meeting was held. A San Luis Action Team was formed that included key staff members, planning and zoning commission, the City Council, the economic development commission, and the other agency stakeholders, such as the Greater Yuma Economic Development Council and Yuma County, as well as individuals representing major businesses (e.g., utilities), landowners, and citizens at large. The Action Team was responsible for overseeing the General Plan process, ensuring public input was solicited and addressed in the plan, and working closely with the consultant to prepare the final report. The Action Team also oversaw the development of the ***San Luis Focused Future Strategic Plan for Economic Development***.

The ***San Luis General Plan*** and ***Focused Future Strategic Plan for Economic Development*** were coordinated with the development of the ***Yuma County 2010 Comprehensive Plan***, a county-wide planning process that occurred simultaneously with the ***San Luis General Plan*** process. Yuma County played an active role on the Action Team by attending regular team meetings and sharing information. Additionally, Yuma County conducted public workshops in South County to ensure that San Luis and other municipal issues in South County were included in the county plan. It is critical that ongoing joint planning continue to address issues of mutual importance (e.g., land use and transportation) between the City of San Luis and Yuma County.

The overall study approach is graphically illustrated on Table 1.1, Process Work Program.



City of San Luis
Arizona

General Plan Update
San Luis Planning Area

Legend **Figure 1.1**

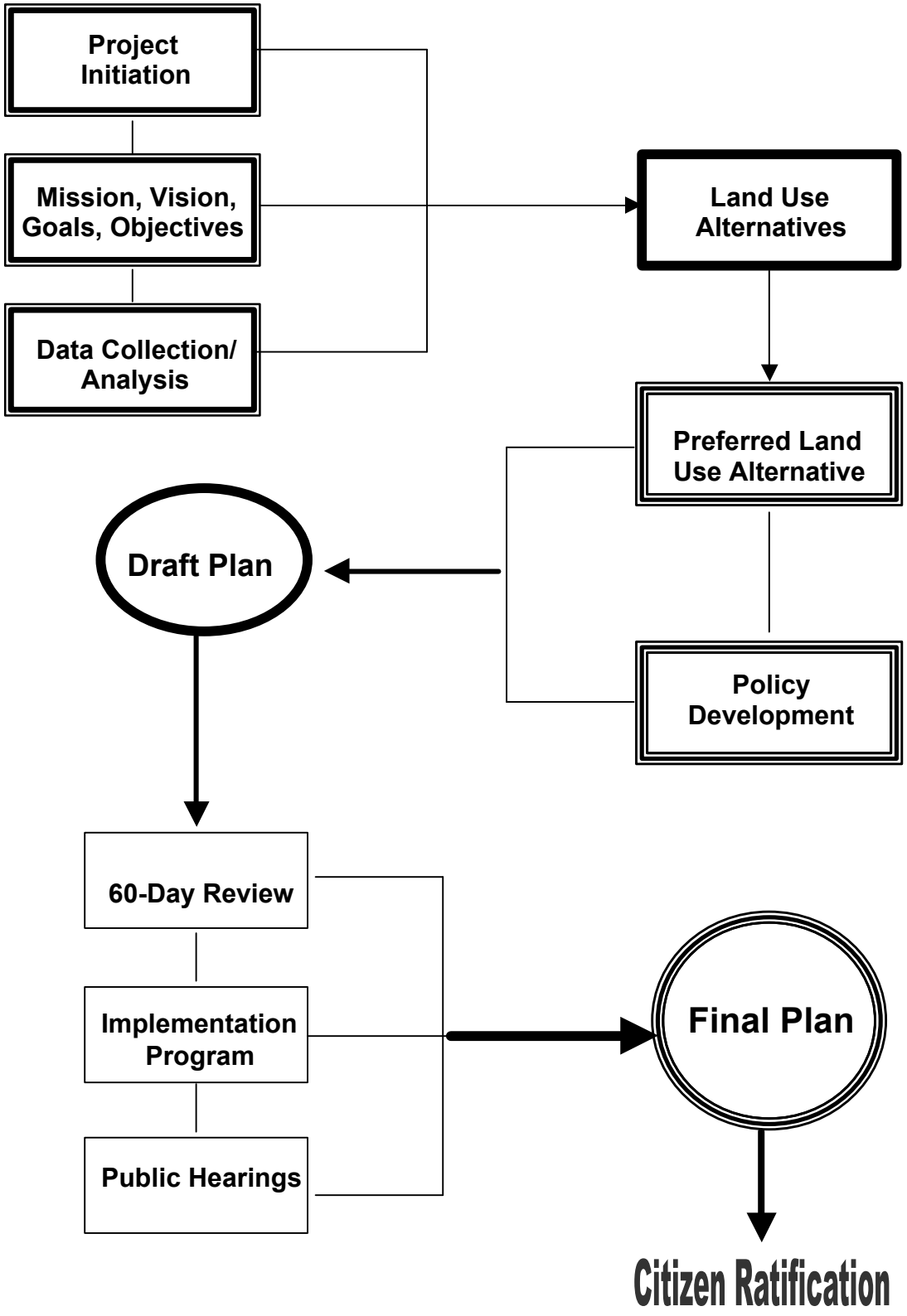
- Incorporated City Boundary (July 2001)
- Planning Area

December, 2001

0 1 2 Mile

Partners For Strategic Action, Inc.
Lima & Associates

Table 1.1, Process Work Program



1.5 PUBLIC INPUT PROCESS

To develop a plan for community development, citizens, landowners, and stakeholders based the Process Work Program on the City of San Luis' desire to solicit involvement. The public involvement process was designed to achieve three objectives: communicate, educate, and involve. At the initiation of the process, the City Council adopted a Public Involvement Plan (PIP). The City of San Luis public involvement process met the Growing Smarter Act that requires ensuring "*effective, early and continuous public participation in the development and major amendment of the General Plan from all geographic, ethnic and economic areas of the municipality."*

The ***San Luis General Plan*** process was coordinated with two studies that were conducted simultaneously. The ***Focused Future Strategic Plan for Economic Development*** process, sponsored by APS, developed a plan to diversify the local economy. Additionally, Yuma County is in the process of developing its countywide comprehensive plan update and members of the Yuma County Planning Department were actively involved in the process.

The City of Somerton also completed a general plan for their community at the same time as San Luis. The two cities coordinated the consultant selection and process development to ensure that the two studies were coordinated. Partners for Strategic Action, Inc. served as the consultant for both communities and was responsible for coordination between the two communities.

The San Luis Action Team was a fundamental component of the public involvement process. The Action Team was appointed by the City Council to provide oversight and guidance in the plan's development. The Action Team met 10 times to provide guidance to the consultant team and staff during the 12-month process.

To ensure good coordination, the process began with a workshop between San Luis and Somerton to review the proposed scope of work, requirements, and critical issues that should be addressed. All members of each city's Council, Planning and Zoning Commission, and Action Team participated in the workshop.

All materials distributed to the community were in both English and Spanish. A general plan display board was created and displayed at City Hall so citizens could learn about the General Plan and process. A community-wide workshop was held on Saturday, August 26, 2000, from 9:00 a.m. to noon. The purpose of the event was to provide a status report on the process and solicit community input regarding the preferred land use and transportation plan. The workshop was widely advertised in Spanish and English. Translation services were made available for workshop participants as well as all Action Team meetings. Approximately 40 people were in attendance. The general plan brochure was distributed at City Hall and at various other activity centers.

According to the Growing Smarter Plus revision to the state statutes, the voters will ratify the ***San Luis General Plan*** at least once every ten years. A general plan is considered effective for up to ten years from the date the plan was initially adopted and ratified by the voters.

1.6 USING THE GENERAL PLAN

The ***San Luis General Plan*** is a statement of policy regarding future growth and development within the planning area. It is important to note that approximately 30 square miles of the planning area are currently under the City of San Luis' jurisdiction. The rest of the area is located within unincorporated Yuma County and is, therefore, under the control of the County Board of Supervisors. The intent of evaluating such a large planning area is to understand the existing development status and future influences upon and within the area that may someday be located within the City of San Luis' incorporated municipal boundaries.

When considering a proposed development project, City staff, Planning and Zoning Commission, and the City Council will evaluate the proposal on how it relates to the Plan's various elements. Ensuring plan continuity and linkages between the various components is critical to implementation.

1.7 ORGANIZATION OF THE GENERAL PLAN DOCUMENT

The remainder of the ***San Luis General Plan*** document is organized in a series of chapters that include:

Chapter 2.0	***San Luis Policy Foundation*** presents the community's vision, goals, objectives, and policies that provide the foundation for the ***San Luis General Plan***.
Chapter 3.0	***Environmental Planning/Water Resources Element*** provides an analysis of the environmental conditions and implications for future development.
Chapter 4.0	***Land Use Element*** provides the plan for future land use to occur in a well-managed and sustainable way. The element also discusses potential Growth Areas as required by state statutes.
Chapter 5.0	***Transportation/Circulation Element*** provides a multimodal transportation system to support the future land use plan.
Chapter 6.0	***Public Facilities and Services/Cost of Development Element*** outlines the requirements for a cost-effective system of public facilities to support the land use plan.
Chapter 7.0	***Parks and Open Space Element*** presents an analysis of forecasted needs and a plan for future development coordinated with the land use plan.
Chapter 8.0	***Implementation Program*** outlines specific actions to ensure that the plan's intent is met. It also describes how the plan will be reviewed and updated.

2.0 SAN LUIS POLICY FOUNDATION

2.1 INTRODUCTION

A key component to the ***San Luis General Plan*** is the establishment of the community vision, goals, objectives, and policies. This policy framework provides the direction for how growth and development should occur within the planning area. It recognizes that much of the planning area is not within the incorporated jurisdiction of the City of San Luis and thus success requires cooperative efforts between the City of San Luis, the Cities of Yuma and Somerton, and Yuma County. The policy framework presents the following.

Community Vision. The community vision presents the ideal future image of the City of San Luis. The statement describes a future state that can be achieved if the plan is implemented.

Goal. A goal is a desired end that, if pursued over the long term, will ultimately result in the attainment of a desired living environment. Goals provide general direction toward a desired future.

Objective. An objective is a desired short-term end that if pursued and accomplished with other objectives will ultimately result in the attainment of the goal to which it relates.

Policies. A policy is a means to attain the established objective and ultimately the identified goals. Policies prescribe a course of action for the city.

2.2 COMMUNITY VISION

A foundation for the ***San Luis General Plan*** is the Community Vision Statement. In developing the Vision Statement the San Luis Action Team identified its most important community values: *Family, Education, and Quality of the Environment*. The Community Vision was the product of considerable discussion by the Action Team. The Community Vision is the community's philosophy and unique image of the future that would be better in some ways than what now exists. It is a future statement, a description of a desired future state for the community. The San Luis Vision Statement developed by the Action Team is below.

San Luis is a border community located on the Colorado River that is proud of its Mexican heritage. The community is strategically located at the crossroads of four corners (two countries and four states). San Luis is the gateway to the Sea of Cortez that offers abundant recreational opportunities and great seafood. It's the heart of the largest winter vegetable-growing region between the United States and Mexico. San Luis is a place where our children are preparing for success in the global economy because of their unique opportunity to experience the multi-cultural environment of the area.

2.3 GOALS, OBJECTIVES, AND POLICIES

Land Use

Community Goal:	Carefully manage and phase new growth and development to ensure an efficient urban form.
Objective:	Promote a compatible mix of land uses throughout the planning area.

Residential Policies:

1. Ensure that the new subdivisions currently and projected to be developed are compatible and well connected to the existing developed areas of San Luis.

2. The City of San Luis shall update the existing zoning ordinance.

3. The City of San Luis shall develop a subdivision ordinance, sign code, and landscape ordinance.

4. Encourage the location of residential neighborhoods close to activity centers to minimize travel times and patterns while encouraging children and adults to safely walk and bicycle.

5. Encourage the removal of zoning and land uses that are nonconforming with the land use element and other applicable elements of the ***San Luis General Plan***.

6. Locate higher-density/intense residential land uses near major roadway corridors to ensure the safe movement of pedestrians and vehicles.

7. Develop rental property, recreational vehicle parking areas, and other types of residential uses geared to attracting winter visitors to San Luis.

Commercial Policies:

1. Work with downtown (Highway 95) commercial establishments to improve the shopping experience and retail offerings to maximize the benefit of border vehicular and pedestrian traffic.

2. Ensure that the new commercial growth occurring to the east of the existing San Luis development area along Juan Sanchez Boulevard develops in accordance with the Land Use Plan.

3. New commercial development should be clustered (i.e., not strip commercial development) along Juan Sanchez Boulevard and other major arterials.

4. Work cooperatively with San Luis Rio Colorado, Mexico, to develop a strong commercial core on both sides of the border to create a unique shopping experience.

5. Discourage strip commercial developments. Freestanding pads should be integrated and compatible with the commercial center design.

6. Encourage the location of neighborhood commercial sites in close proximity to residential neighborhoods.

7. Expand the zoning ordinance to address the variety of commercial zoning classifications to meet San Luis' growing needs.

8. Work to develop mixed-use commercial and service centers at key intersections of Juan Sanchez Boulevard (e.g., Avenues G, F, and/or E) to support the increased growth due to the Area Surface Highway (ASH).

9. Encourage the development of mixed-use commercial and service centers at the north part of the planning area along Highway 95/Avenue J.

10. Require private developers to locate regionally oriented retail and service uses or other high-intensity employment uses along major roadways (e.g., Highway 95, Juan Sanchez Boulevard) with proper access, transitioning to lower intensity uses buffered adequately from residential uses.

11. Encourage the development of hotel(s) that provide meeting space within the planning area.

Employment Policies:

1. San Luis has actively worked with the Greater Yuma Economic Development Corporation (GYEDC) to attract new business development in the planning area. This effort should continue in accordance with the Focused Future Strategic Plan for Economic Development.

2. Expand, develop, and promote the current industrial park within the planning area.

3. Continue to aggressively support the development of the ASH and the new port of entry.

4. Encourage the development of industrial property in close proximity to the proposed commercial port of entry along Avenue E.

5. Support the development of a new private prison within the planning area for the job opportunities and state-shared revenues generated from the prison.

6. Develop a true partnership with Mexico to facilitate trade and job creation. Maintain adequate employment land to support new job growth.

7. Work to get infrastructure extended to employment areas designated on the Land Use Plan.

Master Planning Policies:

1. Encourage large parcels of land within the planning area to be master planned (i.e., inclusive of recreational amenities) instead of allowing piecemeal development on small lots.

2. When considering new master plans, ensure compatibility and efficient connections to surrounding land uses.

3. Work closely with the Arizona State Land Department, which are large land holdings within the planning area, to develop a conceptual master plan consistent with the San Luis General Plan.

4. The City of San Luis should continue to pursue the transfer of public lands (e.g., state land and BLM) to private ownership to increase the amount of private land holdings that are currently very limited within the planning area.

Growth Area Plan

Community Goal:	Focus development and redevelopment within the designated San Luis Growth Area as shown on the Growth Area figure.
Objective:	Ensure a sustainable mix of land uses to occur in a well-managed manner.

Growth Management Policies:

1. The City Council should adopt a strategic annexation policy that outlines procedures for evaluating potential annexation areas (e.g., fiscal impact analysis system) and a target area plan in order to ensure that the planning area is developed in accordance with the ***San Luis General Plan***.

2. Work closely with Yuma County to ensure that development occurs outside of the incorporated city boundaries but within the future planning area as shown within the land use element of the ***San Luis General Plan***. This will ensure application of the City's standards in accordance with the ***San Luis General Plan*** to ensure a smooth transition when or if annexed.

3. Develop an intergovernmental agreement between the City of San Luis and Yuma County regarding governance of land development within the San Luis planning area to ensure that land outside the City's jurisdiction is developed in accordance with the ***San Luis General Plan***.

Redevelopment/Revitalization

Community Goal:	Undertake development projects that will enhance the viability and economic competitiveness of San Luis.
Objective:	Encourage the successful redevelopment and revitalization of existing commercial areas and neighborhoods.

Redevelopment and Revitalization Policies:

1. Revitalize Main Street to enhance community pride and encourage future development.

2. Establish a streetscape and façade program along Main Street.

3. Enhance pedestrian amenities in Downtown San Luis to ensure that pedestrians are safe and traffic can move smoothly.

4. Encourage compatible infill development throughout the community.

5. Develop and adopt a housing maintenance program.

6. Establish a housing loan program for improvements and rehabilitation of San Luis neighborhoods.

7. Identify and assist older, maturing neighborhoods to ensure their long-term stability and improvement.

8. Continue to support housing non-profits and for-profit organizations working to provide quality housing throughout the planning area.

9. Aggressively pursue the adaptive reuse of the "Price Center" development.

10. Expand the available public parking in San Luis, particularly near the border.

Transportation/Circulation

Community Goal:	Ensure a comprehensive multimodal transportation system.
Objective:	Develop a roadway network that supports the San Luis Land Use Plan.

Roadway Policies:

1. Work closely with federal, state, local, and regional funding entities to ensure transportation improvements.

2. Future planning and construction of improvements to the circulation system within the unincorporated future planning area should be coordinated with the appropriate agencies of Yuma County.

3. The City of San Luis will work with Yuma County and the Yuma Metropolitan Planning Organization relative to regional transportation issues that affect the South County area.

4. Utilize new technologies designed to promote system efficiencies, such as coordinated signalization systems, port-of-entry coordination strategies, and other means of incorporating optimized traffic flow and the operation of the entire transportation system.

5. Increase coordination and information flowing between agencies that respond to traffic accidents to help relieve the associated traffic congestion.

6. Elementary, middle, and high schools should be located on roadways with a functional classification of major collector or smaller.

7. Develop City of San Luis guidelines for the development of traffic impact analysis requirements.

8. Develop standard guidelines for transportation related projects.

9. Ensure regular street maintenance of all roadways by developing a capital improvement plan (CIP) to address ongoing roadway needs.

***Objective*:**	Work toward a coordinated transportation system that ensures easy access between different transportation modes.

Multimodal Policies:

1. Develop a multimodal system that provides local and regional access to residential, commercial, and employment land uses.

2. Coordinate and connect multimodal services such as transit/dial-a-ride services that are closely tied to pedestrian and bicycle facilities.

3. Continue to expand transit service between the San Luis Port of Entry, City of Yuma, City of Somerton, and other activity centers within the region.

4. Provide coordination between new transportation investments and the existing transportation system to promote system efficiency. New transportation systems must be designed to support and complement existing services, not replace or compete with them.

5. Study the development of future pedestrian and bicycle trail systems utilizing open spaces and canals within San Luis and linking to the regional system (e.g., West and East Main Canal). Work closely with the Cities of Yuma and Somerton as well as Yuma County on the study to ensure regional coordination.

6. Identify bicycle routes within the City that could be used as transportation alternatives for travel to work, goods, and services.

7. Design new roadways within the City with a functional classification of collector or higher with a minimum 5' striped bicycle lane.

8. All new roadway construction within the City should be constructed with a minimum of 4' sidewalks on local roadways and up to 8' on arterials.

9. Establish a retrofit program that will upgrade existing roadways within the City with bicycle lanes and sidewalks.

10. Coordinate and consult with ADOT to design and construct safe pedestrian crossings of Highway 95 linking both sides of the San Luis planning area.

11. Implement, where appropriate, traffic-calming techniques (e.g., street narrowing, traffic circles, and lowering residential speeds) to ensure that neighborhood residential areas are not disturbed by cut-through traffic.

Objective:	Increase the level of general aviation and aviation-related uses within the planning area.

Aviation Policies:

1. Work closely with the Yuma County Airport Authority and all applicable agencies and Yuma County departments as appropriate on the development of Rolle Airfield.

2. Work toward implementation of the Rolle Airfield Airport Master Plan.

3. Encourage employment development around Rolle Airfield.

Parks, Recreation, and Open Space

Community Goal:	Create a quality parks, recreation, and open space program in San Luis.
Objective:	Develop a comprehensive range of parks and recreational opportunities in San Luis that meet the diverse needs of current and future residents.

Parks Policies:

1. The Parks and Recreation Department shall continue to expand park facilities and recreational opportunities within the planning area.

2. Utilize the park classifications (e.g., neighborhood park) outlined in the General Plan and the National Parks and Recreation Association guidelines and standards to increase and enhance recreational acreage within San Luis.

3. Ensure that all parks and recreational facilities comply with the American Disabilities Act (ADA) to ensure access and enjoyment by individuals with disabilities.

4. Plan and design parks and recreational facilities that reduce maintenance and operational costs and takes into account the short seasons as well as the constraints of the regional climate.

5. Fund and staff full-time maintenance personnel to manage the City's existing and new park resources in a high-quality manner.

6. Utilize the General Plan to prepare, adopt, and regularly update a Parks, Open Space, Trails, and Recreation Master Plan that complements the Yuma County Open Space and Recreational Resources Element, as appropriate. The master plan will determine the specific size, number of facilities, locations for new parks, revitalization activities for existing parks, and programs/enhancements for existing public and private recreation programs. The master plan should reflect the entire City's present and future recreational needs.

7. The City of San Luis shall work closely with Yuma County in the development of the Open Space Element of the ***Yuma County Comprehensive Plan*** to ensure that parks and open space issues are considered on a regional basis at both the municipal and county levels.

8. Consider an appropriate impact fee or dedication of land in lieu of impact fees to assemble the land and fund park design and development.

9. Ensure that parks and open space are considered in the development of and annual review of the City's CIP. The ***San Luis General Plan*** outlines areas of deficiency as well as projected need for parks and recreational facilities. These projects should be programmed into the annual CIP for funding and development.

10. Neighborhood or school parks proposed as an amenity in subdivisions shall be developed in conjunction with the first phase of the proposed development.

11. Ensure that all park and recreational site development addresses public safety issues and adequate access for emergency vehicles.

Recreation Policies:

1. Survey city residents every three years to determine their desires for new recreational activities and programs.

2. Monitor the use of community facilities and consult with users to determine future recreational and leisure needs.

3. Initiate and gain partnerships with all school districts, charter school providers, Yuma County, or other recreational providers within the planning area to utilize their facilities for City-sponsored recreation programs.

4. Support the local school district in negotiations with the Arizona Facilities Board and State Land Department for new school sites.

5. Recognize the need for a variety of recreational opportunities to meet the growing community's diverse current and future recreational needs.

6. Support the efforts of private organizations, volunteer groups, and associations in providing recreational, social, and cultural services to the City.

Open Space Policies:

1. Define open space as either natural or developed. Natural area open space is a tract of land that is preserved in its natural state. Developed open space has been created by humans to convey a sense of openness that may contain passive recreation activities such as seating, viewing etc., as well as golf courses, landscape tracts, and retention basins for storm water.

2. Create an "open space" zoning classification within the City's municipal code to implement the designation of open space in the general plan.

3. Ensure that property owners provide approval, in writing, prior to rezoning lands for open space per Arizona statutes.

4. Utilize natural washes as part of the comprehensive trail system throughout the planning area. Washes should also be considered as natural drainage basins.

5. Discourage development within the boundaries of the 100-year floodplain and encourage the dedication of a continuous 25-foot minimum setback on both sides of the 100-year floodplain boundary as a buffer and potential trail corridor.

6. Ensure that the natural drainage channels are protected and used as a connected trails system to link open space, recreational facilities, schools, and other public facilities.

7. At the time of subdivision, a percentage of the developable land shall be set aside as municipal recreational land. This land shall be landscaped and equipped with recreational amenities by the developer to the satisfaction of the City of San Luis.

8. The City shall enhance the appearance of gateways and entranceways to San Luis.

Public Facilities and Services

Community Goal:	Provide reliable public facilities and services to residents and visitors.
Objective:	Employ advanced planning techniques to ensure proper allocation of funding and identification of new public facilities and services.

Infrastructure Planning Policies:

1. Integrate the City of San Luis' and Yuma County's Water and Wastewater Master Plans as appropriate, concurrent with the implementation of the General Plan, and update the plans on at five-year intervals.

2. Develop and maintain a five-year CIP as part of the budgeting process.

3. Develop and maintain a five-year financial plan for capital projects to meet the needs of San Luis.

4. As the community continues to grow, explore opportunities for joint use facilities as part of planning efforts.

5. Develop a telecommunications master plan in cooperation with private providers and work to implement upgrades in San Luis' telecommunications capabilities.

6. Work with utility providers to maintain reliable power service that has expansion capabilities.

Objective:	Ensure prompt, effective response of emergency services and prepare the community for improved public safety.

Public Safety Policies:

1. Continue to work with various agencies to obtain grants or funding for emergency medical services (EMS) or fire prevention programs for the community outreach efforts especially for children. Programs for additional funding requests include Fire Protection Week, Fire Prevention Outreach, EMS/CPR, and First Aid.

2. Maintain a 4.5-minute police response time for emergency calls, a 5.5-minute response time for urgent calls, and a 10-minute response time for service calls.

3. Maintain a 5.0-minute response time on all emergency calls for the Fire Department or EMS inside the urban area and a 10-minute response time outside the urban area as well as for general calls.

4. Aggressively pursue grant funding to continue/expand programs to reach at-risk youth.

5. Work closely with the Yuma County Sheriff's Office, as well as state and federal law enforcement agencies (U.S. Customs and Border Patrol), to increase public safety in the community.

6. Develop a fire/EMS master plan outlining potential needs as the community grows and develop strategies to lower San Luis' ISO rating.

7. Continue to expand the San Luis Crime Prevention Through Environmental Design (CPTED) program that includes follow-up visits to persons or businesses that have been victims of burglaries. Additionally, inspect homes and make recommendations to the property owners as to necessary modifications to ensure prevention.

8. Continue to expand the Neighborhood Watch Programs.

9. Update and test on a regular basis the EOC for the City of San Luis.

Objective:	Ensure the people of San Luis and surrounding areas access to adequate educational facilities and equipment.

Education Policies:

1. Continue to support the expansion of secondary educational facilities in San Luis to service the City and surrounding areas.

2. Develop a vocational education facility in San Luis.

3. Ensure that educational facilities are located in close proximity to residential neighborhoods.

4. Ensure that the impacts of new residential developments on educational institutions in San Luis are evaluated and any negative impacts are mitigated or addressed.

Cost of Development

Community Goal:	Ensure that new development pays its fair share and does not place an undue burden on existing residents.
Objective:	Maximize the community's investment in infrastructure and services by encouraging development to occur in areas already served by existing infrastructure or where extensions can be made without undue burden to the City of San Luis.

Capital Planning Policies:

1. Utilize the CIP to phase in public/private infrastructure development projects.

2. Develop a standardized cost/benefit analysis to be used on all new development project submittals including per capita costs for public safety services.

3. Evaluate the feasibility of developing a comprehensive impact fee ordinance.

4. Encourage development to occur in areas (i.e., within the corporate limits or planning area) already served by existing infrastructure.

5. Encourage developers to submit plans with necessary infrastructure improvements included.

6. New developments shall be required to identify how they will connect to the existing system and potential impacts.

Objective:	Ensure that current rates and fees are adequate and evaluate alternative revenue generation techniques to finance development costs.

Fee Policies:

1. Periodically perform rate/fee studies to ensure that charges for services are adequate so general fund revenues do not subsidize enterprise funds.

2. Continually research and determine the viability of additional public or private funding sources to implement public facilities and services.

3. Maximize public/private partnerships in infrastructure development (e.g., Yuma County relative to the future planning and development of major infrastructure facilities such as roads, flood control facilities, and water/wastewater treatment facilities).

4. Periodically update any development fees to ensure legal basis and compliance with Arizona Revised Statutes.

5. Explore all funding options (e.g., property tax) to support needed public facilities and services.

Environmental

Community Goal:	Manage San Luis' growth to ensure that it does not negatively impact the sensitive environment within the planning area.
Objective:	Address current environmental issues and adopt a proactive planning strategy to realize a sustainable, healthy environment for future generations.

Air Quality Policies:

1. Encourage a development pattern where residents can live and play within the planning area resulting in reduced vehicle miles traveled and improved air quality.

2. Ensure that all roadways are paved and maintained to reduce particulates in the air.

3. Actively support the development of a regional public transportation system aimed at reducing vehicle trips within South Yuma County.

4. Protect air quality through the development and enforcement of dust control measures on agricultural and development-related uses.

5. Work with Yuma County and the State of Arizona to ensure that regional air quality attainment goals are met.

6. Consideration of air quality and access to incident solar energy for all general categories of land use per ARS 9-461.05 (c) (1) (d).

Land Resources Policies:

1. Protect major natural washes and floodplains by designating them as open space to minimize further flood hazards and maintain natural/riparian areas for wildlife mitigation.

2. Limit grading practices that contribute to flooding and erosion within the San Luis planning area.

3. Due to the shallow water table in various areas within the planning area, ensure that compatible land uses are developed in those areas.

4. Restrict the removal of gravel and other natural resources from washes and flood-prone areas for commercial purposes.

5. Require new development to receive a written response from the Arizona State Historic Preservation Office regarding the effects of urbanization on historical or cultural resources.

6. Ensure that all commercial and industrial activities are carefully monitored relative to the use, production, and disposal of hazardous materials, and that all hazardous materials handling is routed away from residential neighborhoods.

7. Ensure that all new development within the planning area (i.e., within the corporate city limits as well as within the entire planning area) complies with building requirements for areas that are within seismic and subsidence areas.

8. Require that all disturbed land not used for agricultural purposes be revegetated to protect such areas from both wind and water erosion.

Sensitive Land Area Policies:

1. Aggressively ensure that damage upon the existing plant community caused by blading is repaired and the community is returned to its natural state.

2. Develop a plan to encourage indigenous vegetation and riparian habitats to be maintained and enhanced where possible.

3. Protect wildlife habitat and corridors by avoiding sensitive natural features, such as wetlands, riparian areas, sensitive plant and animal sites, and migration corridors. When it is not possible to avoid these natural areas, utilize innovative planning, design, buffering, and management practices to ensure that these areas are protected.

4. Enforce the protection of threatened and/or endangered species that are prevalent within the planning area.

Noise Policies:

1. Ensure noise mitigation occurs along all high-volume roadways (e.g., Highway 95/Juan Sanchez Boulevard/A Street Truck Bypass).

2. As the Rolle Airfield expands, monitor and mitigate noise associated with airfield uses.

Water Resources

Community Goal:	Ensure a long-term water supply to support current and projected population and maintain water quality in San Luis.
Objective:	Ensure that the implementation of the General Plan does not negatively impact the supply and quality of the City's water resources.

Water Policies:

1. Place priority on the construction of facilities that transport and process surface and renewable water resource supplies.

2. Obtain water rights to ensure a positive projected 20-year balance between supply and usage.

3. Pursue opportunities to acquire additional water supplies to support the City's long-term interests.

4. Evaluate the use of a treated effluent conveyance system to irrigate large expanses of turf (i.e., golf courses, public utilities, and roadway right-of-ways).

5. Develop surface water treatment plants to satisfy the City's potable water needs. Eventually, treated surface waters will comprise the majority of the supply with groundwater, augmenting and providing emergency backup.

6. Develop an area-wide plan for reclaiming and recycling storm water and wastewater through a viable tertiary treatment and redistribution program for the irrigation of developed open space, recreation, and public roadway and trail rights-of-way.

7. Protect local groundwater to ensure long-term quality and availability through a wellhead protection program. Complete and implement the Wellhead Protection Study.

8. Inventory regularly the condition of the existing delivery system to ensure quality.

9. Critically evaluate each development proposal to determine long-term impact on water resources and the water system.

10. Develop new wells as outlined in the Water Master Plan.

11. When making water distribution upgrades, follow fire flow requirements outlined in the Water System Master Plan (1999). The fire flow requirements include:

1500 gal/min or 2.16 mgd (at 20 psi) for 2 hrs for residential areas
2500 gal/min or 3.6 mgd (at 20 psi) for 2 hrs for commercial areas

3.0 ENVIRONMENTAL PLANNING/WATER RESOURCES ELEMENT

3.1 ELEMENT STATEMENT

The Environmental Planning/Water Resources Element is intended to analyze the existing environmental conditions in order to determine implications of future development on the local environment.

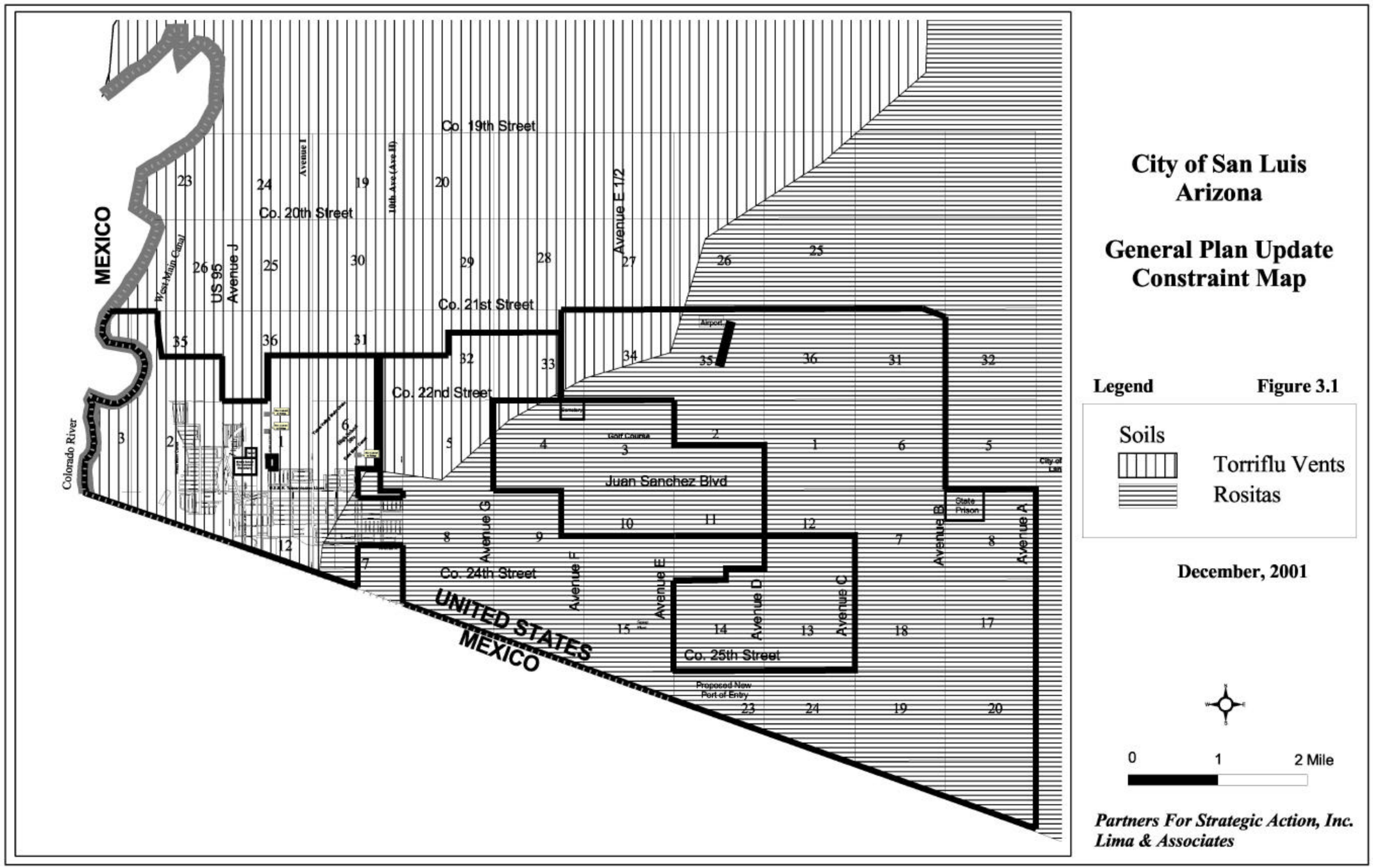
3.2 INTRODUCTION

According to current Arizona law, all communities and counties must analyze the area and determine implications of the proposed land use pattern on the environment. This element is not intended to be an environmental impact assessment, but a guide to decision-making. The element describes the current situation regarding environmental issues and presents goals and policies to ensure that growth and development does not negatively impact the San Luis planning area (i.e., incorporated and planning area boundaries).

3.3 GEOGRAPHY AND TOPOGRAPHY

The original San Luis townsite was situated on the western edge of the Yuma Mesa, adjacent to the San Luis escarpment approximately 18 meters (60 feet) above the Yuma Valley at an average elevation of 140 feet above sea level. The Yuma Mesa in the vicinity of San Luis consists of windblown sand, and is fairly flat with little topographic relief. Recent expansion has taken the community to the north and west, which includes areas of the Colorado River's Yuma Valley.

The geology of the San Luis planning area consists primarily of alluvial deposits of silt, sand, and gravel because of its location along the Colorado River. The bedrock in the San Luis area lies deep underneath the alluvium. In the vicinity of the study area the depth of the bedrock is more than 3,200 feet below ground level. A transition zone exists between the older alluvium and bedrock. The bedrock consists of granite, schist, and conglomerate. Figure 3.1, Constraint Map (Soils) indicates the soil classifications within the planning area. The two classifications indicated on the map do not severely limit development potential throughout the planning area. The soil classifications generally located from the East Main Canal to the Colorado River include clay soils that are typically found on or near floodplains and have typically been good locations for agriculture. The other soil classifications indicated on the map are deep, nearly level, and undulating, and sandy soils that moderately limit urban development and septic tank absorption fields because of slope and sewage lagoon seepage.


MEXICO
Co. 19th Street
Co. 20th Street
Co. 21st Street
Co. 22nd Street
Co. 24th Street
Co. 25th Street
Avenue I
10th Ave (Ave H)
Avenue J
US 95
West Main Canal
Avenue E 1/2
Airport
Golf Course
Juan Sanchez Blvd
Avenue G
Avenue F
Avenue E
Avenue D
Avenue C
Avenue B
Avenue A
State Prison
Proposed New Port of Entry
UNITED STATES
MEXICO
City of San Luis Arizona
General Plan Update Constraint Map
Legend
Figure 3.1
Soils
Torriflu Vents
Rositas
December, 2001
0
1
2 Mile
Partners For Strategic Action, Inc.
Lima & Associates

3.4 SEISMIC HAZARDS

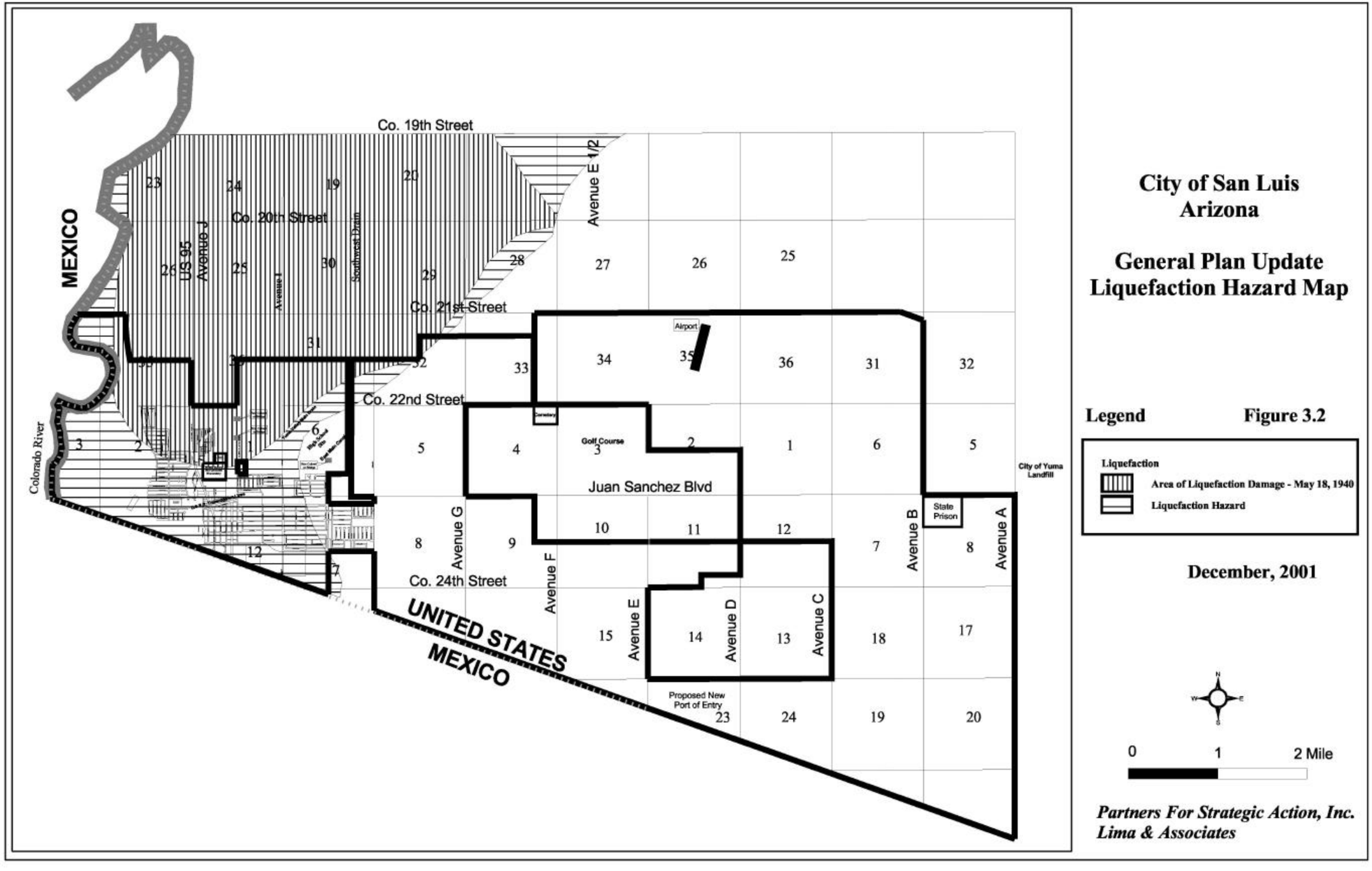
The Yuma Region is located within the area of greatest risk of earthquake ground shaking within the State of Arizona. Seismic waves propagating through the earth's crust are responsible for ground vibrations normally felt during an earthquake. Yuma County is located within a transition zone relative to the active seismic zones located to the west and south. In the immediate area of San Luis, to the northeast, is the potentially active Algodones fault, having a northwest-southeast strike concealed by unaffected alluvium and windblown sand.

The major seismic risk in the study area is due to the Imperial fault and the Cerro Prieta fault—both right lateral, northwest-striking faults. Each of these faults has been responsible for significant earthquakes in the San Luis area. This area is extremely susceptible to earthquake damage, not only due to its proximity to faults, but also due to a locally high water-table within the Yuma Valley and loose, potentially thixotropic soils that are subject to liquefaction even during moderate seismic events. Poor foundation moisture control and leaks from water and sewer lines and irrigation canals may intensify this effect. The area is considered to be within Seismic Zone #4, as Los Angeles, California.

The Yuma Region has experienced significant liquefaction-induced ground failure during historic earthquakes (e.g., 1940 Imperial Valley and in 1979), and should experience liquefaction damage in the future. Liquefaction occurs primarily in saturated, loose, fine- to medium-grained soils in areas where groundwater is 50 feet or less below the ground surface. When these sediments are shaken, such as during an earthquake, a sudden increase in pore water pressure causes the soils to lose strength and behave as a liquid. Ground failure caused by liquefaction is a major cause of earthquake damage. Figure 3.2, Liquefaction Hazard Map shows the areas within the planning area where liquefaction is an issue.

3.5 CLIMATE

San Luis experiences a very hot and arid climate with an average highest maximum temperature of 41.3 degrees C (106.3 degrees F) occurring during the month of July. The lowest average-minimum temperature of 3.3 degrees C (38.1 degrees F) occurs during the month of January. San Luis has an average annual precipitation of only 70 mm (2.77 inches) with the driest months in May and June. Occasional thunderstorms are common during July, August, and September, while the fall and winter months experience gentle rains. Hard frosts are uncommon in San Luis.


Co. 19th Street
Co. 20th Street
Co. 21st Street
Co. 22nd Street
Co. 24th Street
MEXICO
UNITED STATES
MEXICO
Colorado River
US 95
Avenue J
Avenue I
Avenue E 1/2
Avenue G
Avenue F
Avenue E
Avenue D
Avenue C
Avenue B
Avenue A
Southwest Drain
Airport
Golf Course
Cemetery
Juan Sanchez Blvd
State Prison
City of Yuma Landfill
Proposed New Port of Entry
City of San Luis
Arizona
General Plan Update
Liquefaction Hazard Map
Legend
Figure 3.2
Liquefaction
Area of Liquefaction Damage - May 18, 1940
Liquefaction Hazard
December, 2001
N
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2 Mile
Partners For Strategic Action, Inc.
Lima & Associates

3.6 WATER RESOURCES

As the population of San Luis and South Yuma County grows, the demand for water also rises causing the need for increased assurance of a water supply. The City of San Luis' and Yuma County's cooperation will grow in importance as South Yuma County continues to grow. Regional issues such as potable water resources, surface water and flooding, and other similar issues will be impacted by continued growth. The groundwater reservoirs beneath San Luis include younger alluvium, older alluvium, and aeolian deposits. Beneath the Colorado River Valley and the Yuma Mesa, the reservoir's upper portion is divided into three zones. In ascending order, these zones are known as:

The Wedge Zone
This zone extends approximately 760 meters (2,500 feet) deep, comprising the major part of the fresh water-bearing deposits. While average grain size and permeability probably decrease with depth, fine-grained strata are not sufficiently extensive or thick enough to provide a significant hydraulic barrier to ground water.

The Coarse Gravel Zone
This zone varies in depth between 0 and 50 meters (0 to 150 feet) and dips to the southwest. This coarse gravel layer forms the principal aquifer in the Colorado River Valley and the Yuma Mesa.

The Upper, Fine-Grained Zone
This zone varies in thickness from about 30 meters (100 feet) in the Yuma Valley to as much as 55 meters (180 feet) below the Yuma Mesa. Most of the groundwater discharge within the study area takes place from this zone. The shallow water table located beneath the irrigated fields comprises this zone.

Surface Water and Flooding. The Colorado River is the only natural stormwater conveyance channel in San Luis. Windblown sand and agricultural activities generally erode any natural stormwater conveyances that may form.

The current corporate limits of San Luis, except for a small area in the Yuma Valley, lie outside the 100-year floodplain as shown on the Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM). The developed areas of the City, including the City's Wastewater Treatment Plant in the Yuma Valley, are protected from flooding by the Colorado River with a system of flood control levees. Those

areas within the city limits but outside the protection of the levees are now utilized as farmland. Building may or may not be allowed in this area; if allowed, very strict requirements would be imposed.

There are no defined natural stormwater conveyances in the vicinity of San Luis except for the Colorado River. Development of natural stormwater conveyances has been insignificant due to a general lack of precipitation. Windblown sand on the Yuma Mesa and agricultural activities within the Yuma Valley have generally obliterated any natural stormwater conveyances that may have otherwise formed.

The City of San Luis currently has a floodplain ordinance requiring all new commercial developments and residential subdivisions to provide stormwater retention for the 100-year, 24- hour event runoff volume. Retention basins in residential subdivisions typically consist of dedicated stormwater retention facilities excavated several feet below existing grade, developed as neighborhood parks, and maintained by the City Parks and Recreation Division. Retention facilities on commercial sites are onsite, privately maintained facilities.

Current Water Use. The San Luis Water System recorded a total demand in the year 2000 of 575,314,800 gallons. This computes to an average daily flow through the system of approximately 1.58 million gallons per day (mgd). In comparison with other communities of similar size and climate, 96.0 gpcd seems low. Therefore, the estimated per capita value was increased to 140 gpcd for future design purposes. This increase also accounts for higher water use rates resulting from commercial and industrial development rates associated with community growth.

Maximum day and maximum hour demand were not recorded. These values were estimated based on ratios of 2.0 for maximum day to average day and 1.5 for maximum hour to maximum day. These are typical ratios for communities of a similar climate, population, and socio-economic status to San Luis. With these ratios, the 1997 maximum day and maximum hour demands are 2.70 mgd and 4.05 mgd, respectively.

Future Water Use. The development of the future water needs for San Luis is shown in Table 3.1. Future water use was determined by taking the average gpcd of 140 and multiplying this value by the estimated population and the required peaking factors. In summary, the maximum day and maximum hour demands for 2004 and 2020 are shown in Table 3.1.

Table 3.1, Maximum Water Demands

Year	Maximum Day (mgd)	Maximum Hour (mgd)
1998	3.32	4.98
2004	4.99	7.49
2020	10.09	15.14

These values serve as the design capacities for the water study.

The 5-Mile Zone is a 5-mile wide strip of land along the U.S. and Mexican border that extends approximately 13 miles eastward from the vicinity of San Luis, Arizona. It consists of approximately 32,000 acres, comprised of lands acquired for a protective and regularly pumping well field, reclamation-withdrawn lands, State of Arizona lands, and privately owned lands within the Hillander "C" Irrigation District.

The 5-Mile Zone was established pursuant to Title I of the Colorado River Basin Salinity Control Act of 1974 (Act), Public Law (P.L.) 93-320. Section 103 (a) of the Act authorized the Secretary of the Interior

to construct, operate, and maintain well fields capable of furnishing approximately 160,000 acre-feet (af) of water per year for use in the U.S. and for delivery to Mexico in partial satisfaction of the 1944 Mexican Water Treaty (Treaty). Minute No. 242 between the U.S. and Mexico, dated August 30, 1973, provides that each country shall limit pumping of groundwater in its territory within five miles of the Arizona-Sonora boundary near San Luis to 160,000 af annually. Minute No. 242 further provides for delivery of approximately 140,000 af per year at the Southerly International Boundary (SIB) in partial satisfaction of the Treaty. Additionally, P.L. 96-336, which amends the Act, states that no contract shall be entered into that will impair the ability of the U.S. to continue to deliver approximately 140,000 af annually to Mexico at the SIB consistent with the terms contained in Minute No. 242.

The Bureau of Reclamation's (BOR) policy in the 5-Mile Zone is based in part on the Treaty, Minute No. 242, and the Act, as amended. Therefore, any request for use of water from within the 5-Mile Zone is subject to the limitations contained herein as well as existing contracts in the area.

BOR is in the process of developing a Resource Management Plan (RMP) that will address BOR's management and resource responsibilities in the 5-Mile Zone. Of significant concern is the U.S.' continued ability to meet the requirements of the Treaty, Minute No. 242, and the Act now and in the future, coupled with the rapidly growing and competing needs and pressure forer and BOR lands and facilities in the area. As such, BOR has decided to defer any further decisions on actions that impact the 5-Mile Zone until the comprehensive RMP is completed. The RMP should be completed in late 2002. Therefore, any request for use of federal lands within the 5-Mile Zone would not only be subject to the BOR's prior approval, but also subject to the RMP.

Wells. The City of San Luis uses four groundwater well sites that pump water into its distribution system. The City has seven active wells and one inactive well (at well site 1). At each well site, groundwater is pumped from the well to a storage tank before being pumped again to the distribution system. The use of storage tanks and pumps allows flexibility in operation and the potential for multiple wells to supply each site. The wells are typically operated based on storage tank levels and system pressure switches operate the distribution system pumps. The sites have a combined groundwater pumping capacity of 4.586 mgd (3185 gpm) and a total primary distribution system pump capacity of 6.400 mgd (4445 gpm). In addition, the total backup distribution system pump capacity is 4.154 mgd, yielding a total installed capacity of 10,554 mgd.

Table 3.2, Future Water Use for San Luis, Arizona

Year	Projected Population	Volume Used (gpcd)	Average Day Use (mgd)	Peaking Factor (Avg) Day- Max Day	Required Capacity for Max Day (mgd)	Peaking Factor (Max Day to Max Hour)	Required Capacity for Max Hour (mgd)	Current Capacity- Pumped (mgd)	Current Distribution Pump Capacity (mgd)
1997	10878	140	1.52	2	3.05	1.50	4.57	4.59	6.40
1998	11847	140	1.66	2	3.32	1.50	4.98	4.59	6.40
1999	12821	140	1.79	2	3.59	1.50	5.38	4.59	6.40
2000	16465	140	2.31	2	4.62	1.50	6.93	4.59	6.40
2001	17650	140	2.47	2	4.94	1.50	7.41	4.59	6.40
2002	18851	140	2.64	2	5.28	1.50	7.92	4.59	6.40
2003	20057	140	2.81	2	5.62	1.50	8.43	4.59	6.40
2004	21281	140	2.98	2	5.96	1.50	8.94	4.59	6.40
2005	22515	140	3.15	2	6.30	1.50	9.45	4.59	6.40
2006	23753	140	3.33	2	6.66	1.50	9.99	4.59	6.40
2007	24988	140	3.50	2	7.00	1.50	10.50	4.59	6.40
2008	26238	140	3.67	2	7.34	1.50	11.01	4.59	6.40
2009	27523	140	3.85	2	7.70	1.50	11.55	4.59	6.40
2010	28817	140	4.03	2	8.06	1.50	12.09	4.59	6.40
2011	30143	140	4.22	2	8.44	1.50	12.66	4.59	6.40
2012	31499	140	4.41	2	8.82	1.50	13.23	4.59	6.40
2013	32885	140	4.60	2	9.20	1.50	13.80	4.59	6.40
2014	34299	140	4.80	2	9.60	1.50	14.40	4.59	6.40
2015	35740	140	5.00	2	10.00	1.50	15.00	4.59	6.40
2016	37169	140	5.20	2	10.40	1.50	15.60	4.59	6.40
2017	38619	140	5.41	2	10.82	1.50	16.23	4.59	6.40
2018	40086	140	5.61	2	11.22	1.50	16.83	4.59	6.40
2019	41570	140	5.82	2	11.64	1.50	17.46	4.59	6.40
2020	43066	140	6.03	2	12.06	1.50	18.09	4.59	6.40

A summary of the pumping capacities is shown in Table 3.3.

Table 3.3, San Luis Well Site Pumping Capacities

	Pumping Capacity (gpm)		
	Groundwater Pumps	**Distribution System Pumps**	**Backup Distribution System Pumps**
Well Site 1			
Well 1-1**	200**	--	--
Well 1-2	205	300	300
Well 1-3	260	400	400
Capacity	665	700	700
Well Site 2			
Well 2-1	200	225	225
Well 2-2	320	400	400
Capacity	520	625	625
Well Site 3			
Well 3-1	500	780	780
Well 3-2	500	780	
Capacity	1000	1560	780
Well Site 4			
Well 4-1	1000	780 x 2 = 1560	780
Total Capacity	1000	1560	780
Total Capacity	3185 gpm (4.586 mgd)	4445 gpm (6.40 mgd)	2885 gpm (4.154 mgd)

The firm capacity of the system equals the total capacity of the system minus the capacity of the largest well. For the system in San Luis, the largest well is Well 4-1 with a capacity of 1000 gpm. Therefore, the system's firm supply capacity is 2185 gpm (3.15 mgd).

At all well sites, the distribution system pumps are controlled through the use of pressure switches. The pumps are generally in automatic mode, where the system pressure dictates the use of the pump. When pressure decreases below a certain threshold, the pumps go on-line to increase the system pressure. The pumps may be switched to manual mode where the switch is simply turned to the "on" position to pump continuously regardless of system pressure. This practice is to ensure that all wells are contributing to the supply and one or two wells are not dominating the system. This also decreases the possibility of stagnant water in the storage tanks and forces water to flow at each well site. Operation of the system in this way is under the operator's discretion.

Backup distribution systems pumps are located at each well site. Each pump at well sites 1 and 2 has one backup pump. Well site 3 has one extra distribution system pump that serves as the backup for both on-line pumps. Well site 4 also has one extra pump that acts as the backup for both of the on-line pumps.

Well sites 3 and 4 have on-site generators to extend the capability of the wells to periods without power. These generators have the capability of providing emergency electricity, allowing the wells to continue to supply the water distribution system.

Storage Tanks. San Luis has 1,055,000 gallons of ground storage capacity. Table 3.4 shows the distribution of storage at each well site.

Table 3.4, Ground Storage Tanks

Well Locations	Storage Tank Volume (gal)
Well Site 1	
Well 1-2 & 1-3	100,000
Well Site 2	
Well 2-1	2 @ 15,000
Well 2-2	125,000
Well Site 3	
Well 3-2, 3-2	300,000
Well Site 4	
Well 4-1	500,000

***Existing Water Quality*.** Water quality data taken previously was used to determine potential constituents that may be harmful to public health. Currently, calcium hypochlorite is added to the water as a disinfecting agent after being pumped from the well. This aids in the protection of public health.

The water quality data provided by the City was compared with the maximum containment level (MCL) listings that will be used in the new Consumer Confidence Reports and be required for distribution to water users next year. The groundwater had no MCL violations, although it was found to have high concentrations of total Dissolved Solids, Total Hardness, Manganese, Iron, Chloride, Sodium, and Sulfate.

Water Quality Analysis

Alpha Emitters
The radioactive test for alpha emitters was well below the allowable MCL. There was no test for combined radium, however, given the low value of alpha emitters, combined radium should not be a problem.

Inorganics
The City has taken tests for lead and copper at points of entry as well as at residences. There were 4-5 out of 30 tests on lead and copper that were over the MCL from residences. Lead and copper test results are on file with the City and data indicates that the values were below the MCLs from the well sites.

pH
All test values in the data are based on tests conducted in the laboratory. Wide variations are often found between laboratory and field values for pH in groundwater. Therefore, no conclusive determination on pH can be made.

Synthetic Organic Contaminants
This category includes pesticides and herbicides, contaminants that should be tightly monitored in agricultural areas such as San Luis. All tests were below detection level. Tests were not conducted for Acrylamide or Epichlorohydrin but neither chemical would be expected to be present in groundwater at this location.

Volatile Organic Contaminants
All tests were below contaminant levels.

Iron and Manganese
The groundwater is high in iron and manganese. The Secondary Contaminant Level for iron is 0.3 mg/L. There were two measurements for iron in the data provided. A concentration of .255 mg/L was detected at well site four and a concentration of 0.09 mg/L was measured for the composite sample collected for all other sites. Since iron is easily oxidized by air and forms a precipitate when oxidized, the composite sample is believed to be inaccurate. It is likely that the dissolved iron originally present in this sample precipitated and collected on the bottom of the sample container. Based on this, it is believed that the iron is actually greater than the 0.3 mg/L Secondary Contaminant Level, and treatment is necessary.

The Secondary Contaminant Level for manganese is 0.03 mg/L. The manganese level in both samples was 0.43-0.44 mg/L. Manganese is very slowly oxidized so the values obtained in the tests are probably valid. If chlorine is used for disinfection, and/or fabric whiteners are used in home laundry systems, manganese forms a brown/black precipitate.

Existing Distribution System. The current water distribution system is composed of a complex pipe network consisting of 4-,6-,8-,10-, and 12-inch mains. The majority of the system is composed of 6- and 8-inch mains. Many of the 4-inch mains will be replaced as part of a current project, although one subdivision will still be supplied with 4-inch mains. The old distribution mains in the system are made of asbestos cement and the newer pipes are polyvinylchloride (PVC) pipe. All connections between new and existing pipes will be made at joints and not by tapping the existing pipes, which will limit health hazards.

3.7 WASTEWATER TREATMENT

Simons, Li & Associates, Inc. for the United States Army Corps of Engineers completed a San Luis Wastewater Master Plan in July 1997. The purpose of the study was to identify current and projected wastewater management system improvements required for the City of San Luis to meet current and anticipated future wastewater collection and treatment requirements.

The existing wastewater collection system is adequate to serve the requirements of the currently incorporated area of San Luis, while allowing for a limited amount of future expansion as projected in the Master Plan. The ***San Luis General Plan*** area incorporates a larger study area; therefore as development begins to occur within the expanded planning area, the Wastewater Master Plan must be revisited. Additionally, there are many issues of mutual concern between the City of San Luis and Yuma County (e.g., treatment and reuse of wastewater in the City's planning area) that may remain within the jurisdiction of Yuma County for some time into the future pending eventual annexation by the City.

A significant number of manholes show damage consistent with hydrogen sulfide attack. The relatively flat sewer grades, warm temperatures, and high-sulfate potable water in the area all favor the formation of hydrogen sulfide in the wastewater collection system. Repairs have been made.

As the City continues to grow, new sewer mains will be required to convey sewage flows. Short- and long-term system requirements were estimated by city staff and others and are outlined in the Wastewater Master Plan. The cost for these improvements will be directly borne by developers. Eventually, some of

the existing sewer mains will approach full capacity, and have to be upgraded through replacement or construction of bypass lines.

The existing wastewater treatment plant has a rated average dry weather flow capacity of 750,000 gallons per day. The present average daily flow rate is approximately 650,000 gallons per day. According to the ***San Luis Wastewater Master Plan***, at the projected rate of municipal growth, the current plant will be operating at full capacity by the year 2001. The projected sewage flow from existing lots within the City would, even without further annexations, exceed the capacity of the existing treatment plant. Several plant modification options are presented in the ***Wastewater Master Plan*** and a recommended series of plant upgrades was suggested to serve the estimated needs through the year 2006. Plans are being prepared to expand the plant to 1.6 mgd by December 2001.

The treatment plant is currently operating without a discharge permit, and without specified effluent quality standards. The effluent permit is currently being negotiated with the United States Bureau of Reclamation. Typical effluent quality standards include suspended solids and five-day Biochemical Oxygen Demand (BOD) of less than or equal to 30 mg/liter each. It is unlikely that any future discharge permit would have higher limits, although lower limits are possible. The current wastewater treatment plant effluent generally meets the suspended solids requirement on average, but not consistently on a day-to-day basis. Compliance with proposed BOD requirements cannot be readily verified due to abnormalities in the laboratory test procedures, according to the ***San Luis Wastewater Master Plan***.

3.8 AIR QUALITY

The City of San Luis is not included in the Yuma PM10 Nonattainment area. Therefore, the City is not subject to the requirements of the 1990 Clean Air Act Amendments. However, the City Public Works Department does practice reasonably available control measures such as street sweeping, watering, and paving. The City will consider and to the extent possible mitigate impacts to adjacent unincorporated areas. Air quality issues will become more pronounced as the South Yuma County area continues to grow and develop.

3.9 NOISE

Noise within the San Luis planning area is attributed to automobile, truck traffic, and border truck traffic and along U.S. 95 and Juan Sanchez Boulevard. These roadways are major thoroughfares with a great deal of truck traffic. Areas adjacent to agricultural lands experience normal noise levels associated with agricultural activities. As the Rolle Airfield develops, noise associated with the airfield-related uses will increase and should be mitigated. The City will consider and to the extent possible mitigate impacts to adjacent unincorporated areas. Noise-related issues will become more pronounced as the South Yuma County area continues to grow and develop.

3.10 ENVIRONMENTALLY SENSITIVE AND WILDLIFE AREAS

The planning area lies within the Lower Colorado River Subdivision of the Sonoran Desert and is composed of sandy plains containing micro-dunes. The vegetation cover consists of Big Galleta Grass (*hilaria rigida)*, Creosote Bush (*larrea tridentata)*, and White Bursage (*ambrosia dumosa)*. Sand food *(pholisma sonorae)* is designated as "Highly Safeguarded" for protection. This classification is for Arizona native plants whose prospects for survival in the State are in jeopardy or are in danger of extinction, or are likely to become so in the foreseeable future, as described by the Arizona Native Plant Law (1993).

There are many recorded cultural resources along the Colorado River within Yuma County. The Patayan culture were the primary inhabitants of the Lower Colorado River area and they were ancestors of the Yuman people, who now inhabit the Cocopah and Quechan Indian Reservations. Archaeologists who have studied this area generally conclude the harsh desert environment of southwest Arizona was not conducive to the development of permanent or semi-permanent habitation sites. Sites of this region generally reflect a migratory, hunter/gatherer lifestyle, characterized by temporary campsites and special activity sites rather than villages. According to the Arizona State Museum record at the University of Arizona, there have been eight archaeological surveys completed and eight archaeological sites located within the project area. All of these eight sites are limited to small areas of scattered shards. Only two sites had any archaeological artifacts and these were not noted as being significant in any aspect.

The planning area encompasses a distinct habitat type and supports many species of desert animals, both indigenous and migratory. Wildlife species that inhabit the area primarily are Coyote, Kit Fox, Desert Cottontail Rabbit, Collard Lizard, Desert Iguana, Western Whiptail, Western Banded Gecko, Gila Monster, Sidewinder, Kangaroo Rat, Desert Tortoise, Gambel's Quail, Burrowing Owl, Turkey Vulture, and wild dogs. In addition, the Pacific flyway for migrating birds, ducks, geese, and predator species bisects the area. These migrating birds utilize the agricultural fields and citrus groves in the region for resting and grazing.

The Flat-Tailed Horned Lizard *(Phrynosoma mcallii)* is on the Arizona Game and Fish Department list of Wildlife of Special Concern in Arizona (i.e., species whose occurrence in Arizona is or may be in jeopardy, or with known or perceived threats or population declines). The *Flat-Tailed Horned Lizard Rangewide Management Strategy* established actions to limit surface-disturbing activities and implemented special mitigation and compensation measures if there is habitat disturbance. The objective is to maintain viable populations of Flat-Tailed Horned Lizards for at least 100 years within the designated management area. This animal's habitat is found within the planning area. It is the Creosote *(Larrea tridentata)*, and White Bursage *(Ambrosia Dumosa)* in association with sandy flats and areas of flat windblown sand. Habitat threats to the Flat-Tailed Horned Lizard occur when agricultural development, infrastructure, and urbanization has taken place. The Fringe-Toed Lizard and Desert Tortoise (i.e., endangered species) have also been documented in the planning area.

4.0 LAND USE ELEMENT

4.1 ELEMENT STATEMENT

The San Luis Land Use Element provides an opportunity to accommodate future growth in a well-managed and sustainable way. The land use element (i.e., map and text) provides areas for a wide array of employment opportunities that are needed to ensure a strong local economy and new supportive commercial areas while strengthening the commercial core along the border.

4.2 INTRODUCTION

The Land Use Element provides direction for growth, development, and redevelopment to occur within the planning area. The timeframe for the general plan is ten (10) years, though regular review and update of the plan is anticipated. According to state law, the citizens in a public vote must ratify the General Plan at least once every 10 years. The element presents a "land use map" that graphically depicts proposed future land uses throughout the planning area and also provides text describing how the area should develop. Both the map and text must be used simultaneously in making decisions about future growth within the planning area.

The ***San Luis General Plan*** was coordinated with the ***Yuma County 2010 Comprehensive Plan*** and the ***Somerton General Plan*** to ensure compatibility. The ***Yuma County 2010 Comprehensive Plan*** will take into consideration the City's proposed land use designations with the planning area that is currently unincorporated. It is important to establish an early and continuous dialogue concerning the issue of land use designation compatibility within the City's future planning area the unincorporated areas adjacent to the City limits and future planning area.

The Land Use Element also identifies the San Luis Growth Area pursuant to state statutes. A "Growth Area," according to state law, is that area where the City anticipates focusing development over the next 20 years. The San Luis Growth Area is smaller than the entire planning area but larger than the current incorporated boundary.

4.3 LAND USE ISSUE IDENTIFICATION

Population Growth. San Luis is the fastest growing community in Yuma County with a 28 percent per year population increase. The Yuma County area as a whole has also experienced explosive growth. The City is also experiencing an influx of new residents that has sparked new housing developments. This growth is expected to continue into the foreseeable future. How the community responds to this continued projected growth will determine its success in maintaining the area's quality of life. Land use, growth, and development issues are regional in nature and Yuma County, as well as all of the municipalities, must continue to work cooperatively to address the impacts of growth throughout the entire region.

Dynamic Region. The City of San Luis is within a very dynamic Yuma County region that is experiencing tremendous growth and change. Additionally, San Luis, Arizona's twin city, San Luis Rio Colorado, Sonora, Mexico is reaching a population of 250,000. The City has become an active player in regional issues, such as economic development and resource management.

Agriculture. The City of San Luis is located within North America's largest "salad bowl." The area is the largest exporter of agricultural products and Yuma County is the number one agricultural county in Arizona. The City is surrounded by agriculture that is still in production, but the nature and scope of agriculture and land use is changing.

Infrastructure. The City of San Luis' ability to grow is directly tied to its ability to provide public infrastructure. Water and sewer infrastructure is critical to address if expansion is to occur.

Commercial Development. The only major commercial area in San Luis is along U.S. 95 and around the international border crossing. This area has historically been the commercial center of San Luis. As the community continues to grow east along Juan Sanchez Boulevard, commercial development will follow along the roadway.

Economic Diversification. The current economy is highly dependent upon agriculture. The City of San Luis is very interested in diversifying its economic base to ensure long-term sustainability. The City's ***Focused Future Strategic Plan for Economic Development*** outlines a strategy for economic diversification. The San Luis Economic Development Commission in partnership with the Greater Yuma Economic Development Corporation is responsible for implementing the plan.

4.4 LAND PATTERN

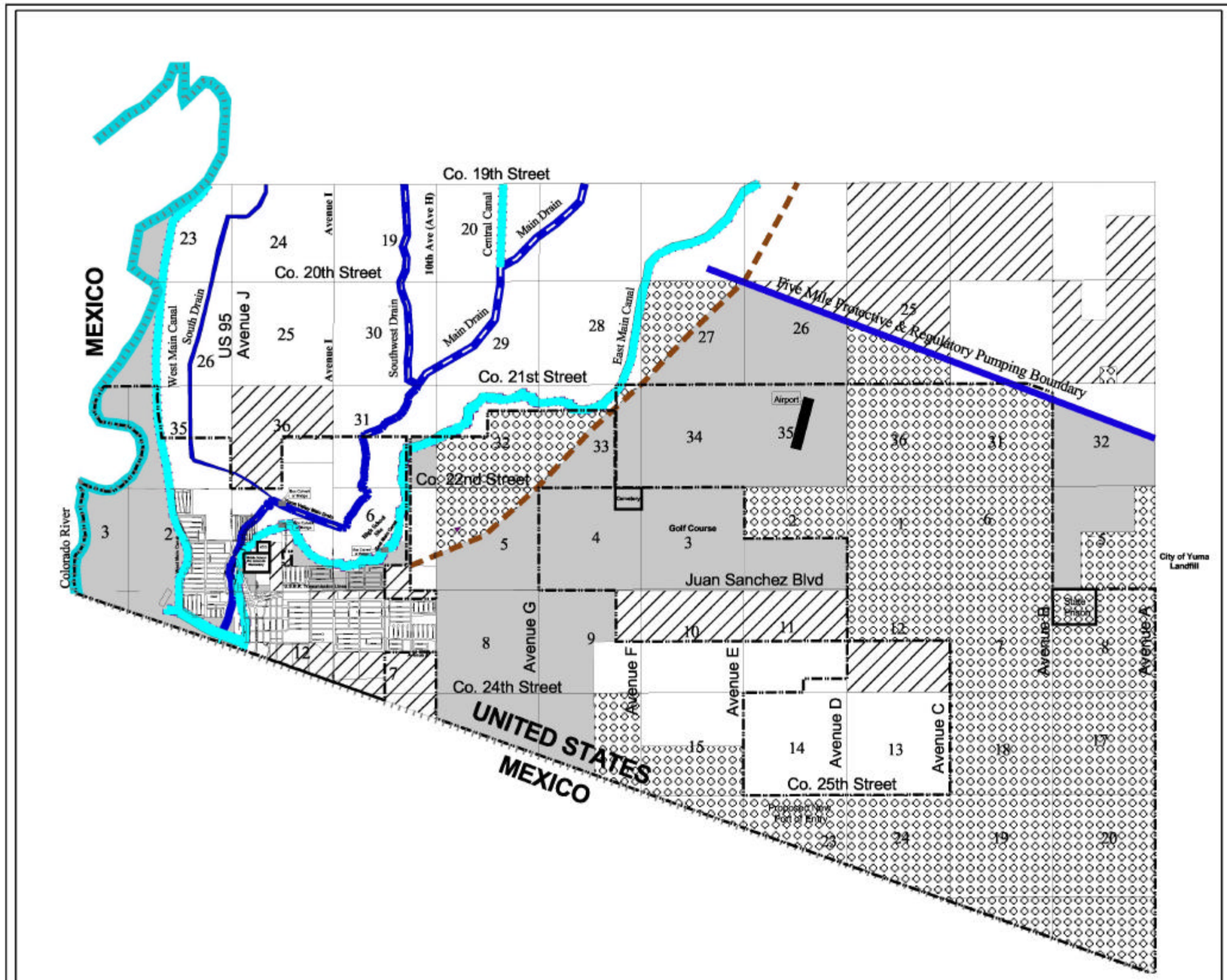
The San Luis planning area includes the current incorporated city limits (30 square miles) and the entire planning area that is 59.8 square miles. The planning area comprises private and public lands. In addition to the privately held lands, ownership within the planning area includes the Arizona State Trust and Bureau of Reclamation. Following is a chart showing the percentage of land ownership. Figure 4.1, Land Ownership Map, depicts the ownership pattern within the planning area.

The Yuma Valley of the Colorado River, which is two miles wide in the vicinity of San Luis, is a major agricultural area. It possesses a highly developed irrigation system and a reliable supply of irrigation water with a warm, sunny climate and mild winters. Dams along the Colorado and Gila Rivers, in conjunction with local flood control levees, have reduced the flood potential in the low-lying, easily irrigated areas. Approximately four miles east of San Luis is a limited amount of cultivated land on the Yuma Mesa. This land is irrigated using groundwater.

The Bureau of Reclamation (BOR) controls a significant amount of the agricultural and undeveloped land in the San Luis planning area. BOR land within five miles of the international border is protected from development in order to maintain the Treaty Water Rights. A series of wells was developed to

supplement irrigation flows to Mexico when diverted flows do not meet international treaty flow rate requirements.

Within the current City limits the majority of the residentially zoned land is divided into lots averaging 5,000 square feet. This land includes many mobile homes and manufactured houses. San Luis has several recently completed single-family subdivisions. The southeast section of the City is an industrial park district. It primarily consists of commercial and light industrial establishments. Commercially zoned land is located along U.S. Highway 95 and Juan Sanchez Boulevard. The area along Juan Sanchez Boulevard is not yet developed.



City of San Luis
Arizona

General Plan Update
Land Ownership Map

Legend **Figure 4.1**

Land Ownership

- Bureau of Land Management (BLM)
- Bureau of Reclamation (USA)
- State Trust Land (ST & AZ)
- Private Land
- City Owned Land

December, 2001

0 1 2 Mile

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4.5 LAND USE PLAN

The City of San Luis will expand to the east particularly with the establishment of the second border crossing. The area to the east is a mix of large public and private land holdings. Increasing amounts of industrial development near the international boundary, and further commercial development along major transportation corridors, is anticipated. The character and magnitude of further residential development is dependent upon the local and world economy, tourism, the possible development of San Luis as a winter residential area, and expansion of existing infrastructure.

Opportunities for municipal expansion to the west of San Luis are minimal due to the proximity to the Mexican border, floodplain, and the lack of land, other than that held by the BLM. The majority of long-range development will be east and north of San Luis. The property to the northwest is privately held agricultural land.

At the present time, the economy of San Luis is highly dependent on both trade with Mexican nationals and agricultural employment. Local agricultural production and employment is unlikely to increase in the future as agricultural land may adversely affect the local economy to some extent, unless offset by gains in commercial and industrial employment. The continued growth of San Luis, Arizona, as a retail center for the City of San Luis Rio Colorado, Sonora, Mexico, is likely, although this type of economy has been shown to be very volatile since it is highly dependent on the value of the Mexican peso.

Land use classifications assist in the use and interpretation of the Future Land Use Plan. The land use classifications guide land use decision-making for San Luis. The district lines are located along significant natural and man-made features wherever possible to aid in identification. These features include but are not limited to power lines, roadways, subdivisions, washes, and existing development patterns.

The land use classifications and boundaries represent generalized recommendations for future development. However, the precise location of the boundary may not always be critical. Variations within 500 feet, particularly where no significant natural or man-made feature is present, may be acceptable. It will be the responsibility of the Planning and Zoning Director and Commission, based upon the guidance provided by the ***San Luis General Plan***, to establish district boundaries if questions arise as to the specific location of said boundaries.

Figure 4.2, Future Land Use Plan (Existing Developed Area) indicates the land uses for that area of San Luis where development has historically occurred. Figure 4.3, Future Land Use Plan (Expanded Development Area) indicates preferred land uses for the expanded planning area. The maps depict the preferred land use development pattern for the entire planning area long-term. However, it is important to interpret the land use map in conjunction with the goals, objectives, and policies outlined in the General Plan. Due to the fact that much of the planning area is outside the current incorporated boundaries of the City of San Luis, land use designation compatibility between the City and Yuma County is important. Therefore, coordination with Yuma County on land use designations is critical.

Land Use Classifications. The following are the land use classifications for the San Luis Future Land Use Plan. The land use classifications are presented in dwelling units per acre (du/ac). These ranges represent "gross" densities.

Rural Ranchette (1-2 du/ac). Denotes areas where large lot single-family residential development is desirable. These areas are intended to remain rural in nature.

Residential – Low Density (2-6 du/ac). Denotes areas where single-family residential development is desirable. Suitability is determined on the basis of location, access, existing land use patterns, and natural or man-made constraints.

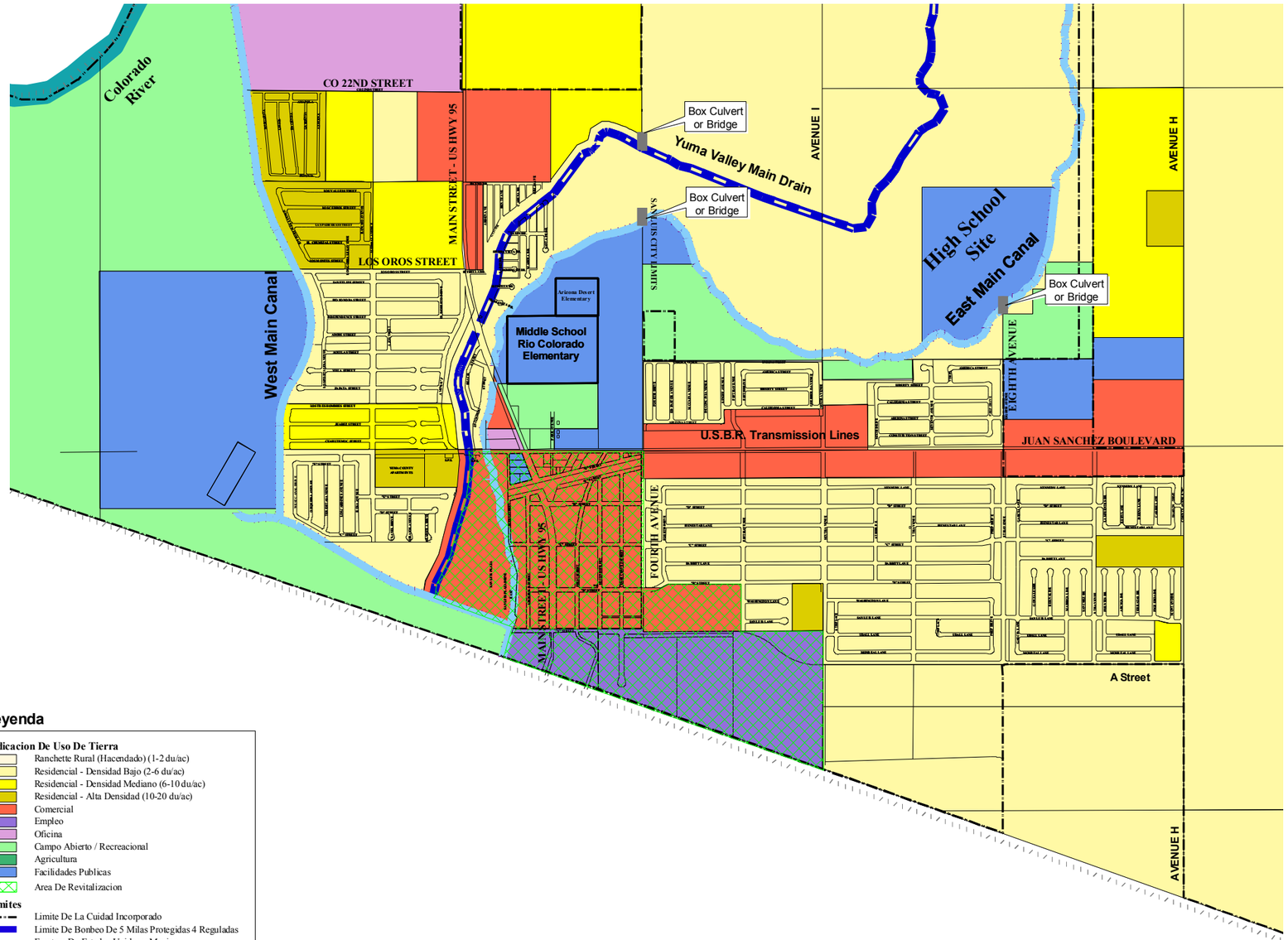
Residential – Medium Density (6-10 du/ac). Denotes areas where single-family attached, townhouse, and patio home development is appropriate. Limited high density residential, medium-density residential, and neighborhood commercial may also be acceptable in certain areas where deemed appropriate by the City.

Residential – High Density (10-20 du/ac). This category denotes areas identified to be appropriate for apartments, condominiums, and townhouses. These areas should be located on the periphery of medium-density residential areas and should capitalize on arterial access and adjacent shopping and employment opportunities. High traffic volume impacts on local, lower-density residential streets are discouraged. The density will depend on the orientation, landscaping, amenities provided, and open space preserved within the proposed development. Other uses permitted in this category may include commercial categories and public/semi-public.

Commercial. Denotes areas for service retail and other intensive types of commercial uses over 15 acres in size. Commercial is intended to support quality neighborhoods. Commercial areas must have controlled access to arterial streets. The commercial areas are intended to develop as the community's major commercial and service activity centers. However, any commercial development must be sited and designed such that the activities proposed will not adversely impact adjacent residential neighborhoods.

Employment. Denotes areas appropriate for employment-type uses. The particular type of use will be determined based upon its potential impact upon adjacent land uses and the intensity of development. In particular, the development of industrial parks shall be such that the light industrial uses shall be located along arterial streets where visibility to the public is likely. Heavier industrial uses shall be located away from the arterial streets, buffered by the light industrial uses.

Office. Denotes areas for professional office, tourism, and service use with good arterial access appropriately buffered from residential areas. In many cases, offices are a good buffer between residential and other higher uses, such as commercial or higher-intensity employment.



Leyenda

Indicacion De Uso De Tierra
- Ranchette Rural (Hacendado) (1-2 du/ac)
- Residencial - Densidad Bajo (2-6 du/ac)
- Residencial - Densidad Mediano (6-10 du/ac)
- Residencial - Alta Densidad (10-20 du/ac)
- Comercial
- Empleo
- Oficina
- Campo Abierto / Recreacional
- Agricultura
- Facilidades Publicas
- Area De Revitalizacion

Limites
- Limite De La Cuidad Incorporado
- Limite De Bonbeo De 5 Milas Protegidas 4 Reguladas
- Frontera De Estados Unidos y Mexico
- Rio Colorado
- Canal
- Drenaje Principal
- Linea Electrica

City of San Luis Arizona

General Plan Update Future Land Use Plan (Existing Developed Area)

Legend **Figure 4.2**

Land Use Designations
- Rural Ranchette (1-2 du/ac)
- Residential - Low Density (2-6 du/ac)
- Residential - Medium Density (6-10 du/ac)
- Residential - High Density (10-20 du/ac)
- Commercial
- Employment
- Office
- Open Space / Recreation *
- Agriculture *
- Public Facilites
- Revitalization Area

Boundaries
- Incorporated City Boundary
- Five Mile Protective and Regulatory Pumping Boundary
- United States & Mexico Border
- Colorado River
- Canal
- Main Drain
- Power Line

Note: du/ac = dwelling units per acre

**** Per Arizona Revised Statutes, lands privately-held or State Trust lands are allowed to develop at a minimum of one dwelling unit per acre.***

December, 2001

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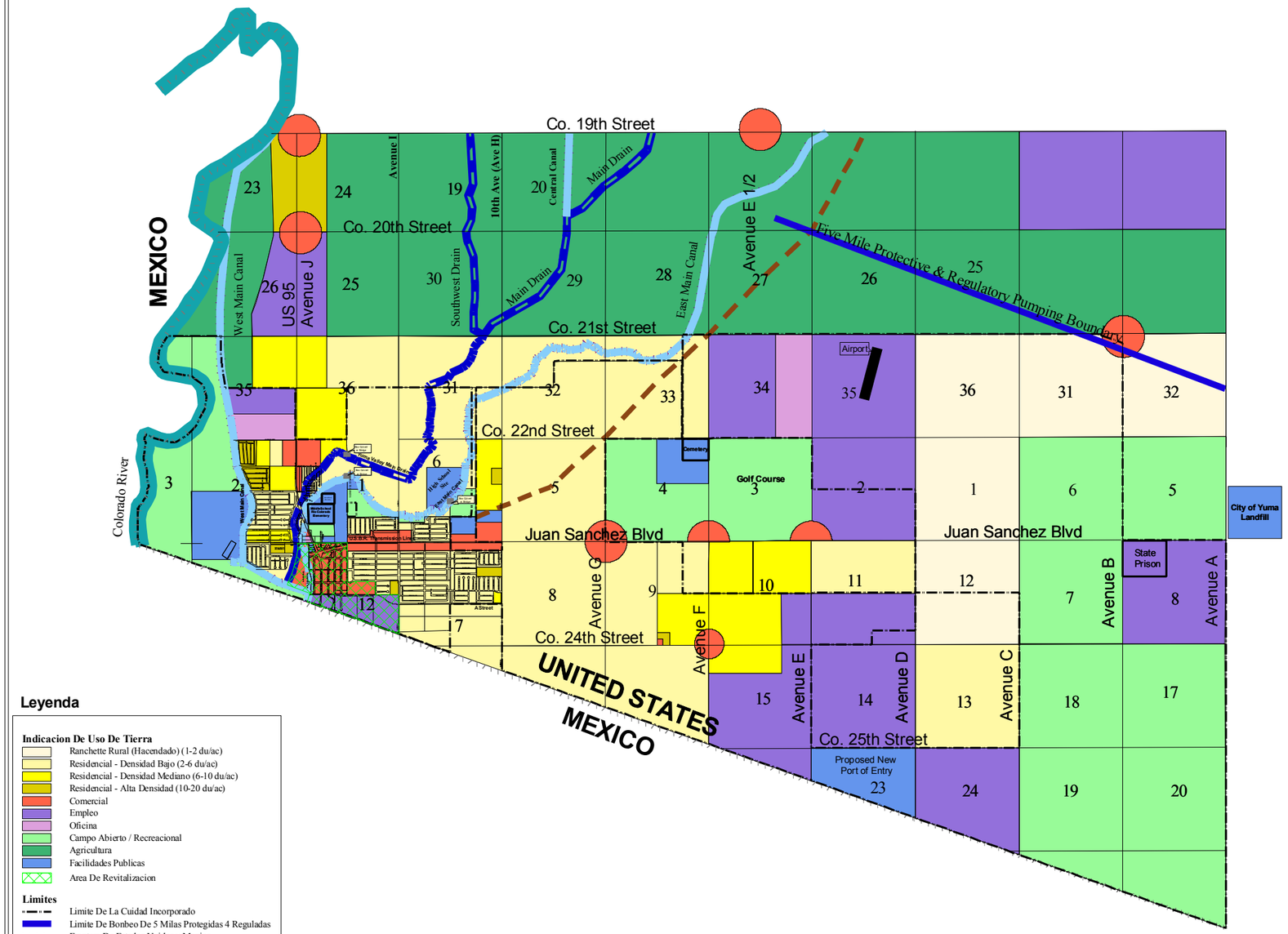
City of San Luis Arizona

General Plan

Future Land Use Plan (Expanded Development Area)



Legend

Figure 4.3

Land Use Designations
- Ranchette (1-2 du/ac)
- Residential - Low Density (2-6 du/ac)
- Residential - Medium Density (6-10 du/ac)
- Residential - High Density (10-20 du/ac)
- Commercial
- Employment
- Office
- Open Space / Recreation*
- Agriculture *
- Public Facilites
- Revitalization Area

Boundaries
- Incorporated City Boundary
- Five Mile Protective and Regulatory Pumping Boundary
- United States & Mexico Border
- Colorado River
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Note: du/ac = dwelling units per acre

**** Per Arizona Revised Statutes, lands privately-held or State Trust lands are allowed to develop at a minimum of one dwelling unit per acre.***

Leyenda

Indicacion De Uso De Tierra
- Ranchette Rural (Hacendado) (1-2 du/ac)
- Residencial - Densidad Bajo (2-6 du/ac)
- Residencial - Densidad Mediano (6-10 du/ac)
- Residencial - Alta Densidad (10-20 du/ac)
- Comercial
- Empleo
- Oficina
- Campo Abierto / Recreacional
- Agricultura
- Facilidades Publicas
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- Canal
- Drenaje Principal
- Linea Electrica

December 2001

0.6 0 0.6 Miles

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Agriculture. Denotes areas that are currently in agricultural production and the use continues to be economically viable. However, this classification allows for a minimum of one dwelling unit per acre.

Public Facilities. Denotes areas to be used for public purposes such as schools, parks, and public facilities.

Open Space/Recreation. Denotes areas that are to be precluded from development except for public park facilities. These areas should be left in a relatively natural state for scenic purposes due to topographic constraints or the need for buffer areas between potentially incompatible uses. Open spaces are generally held in ownership by public entities. According to state law, lands privately held or State Trust Lands designated as open space/recreation on the land use map are allowed at a minimum of one dwelling unit per acre.

Revitalization Area. Denotes the area of Old Town including the surrounding residential and employment areas for preservation and rehabilitation of buildings and vacant or underutilized areas.

Table 4.1, San Luis Land Use Designation Acreage by Type

Designation	Acres	Percentage of Total
Rural Ranchette	3,150.95	8.2
Residential – Low Density	7,605.44	19.9
Residential – Med Density	1,183.86	3.1
Residential – High Density	363.85	1.0
Commercial	961.67	2.5
Employment	6338.85	16.6
Agriculture	10,389.71	27.1
Public/Semi Public	1,095.32	2.9
Open Space/Recreation	6,958.11	18.2
TOTAL	38,276.41	100.0 (rounded)

Population Build-Out Projections. The calculations in this section have been developed to determine the amount and type of services that will be needed in San Luis to serve the population when a majority of the land in the planning area has been developed (build-out) in accordance with the current land use scenario.

Assumptions

- 80 percent of the residential land will be built (the remainder will be roads, drainage, sidewalks, etc.).
- The 200 Census indicated the average household in San Luis contained 4.31 people.
- Each residential land use has been estimated to be developed in a low-, medium-, and high-density fashion.

Ranchette Residential Designation (1-2 dwelling units per acre)

Density Scenario	Total Acres	Built Acres	Dwelling Units	Population
Low - .5/acre	3,150	2,520	1,260	5,431
Med – 1.25/acre	3,150	2,520	3,150	13,577
Hi – 2.0/acre	3,150	2,520	5,040	21,722

Low-Density Residential Designation (2-6 dwelling units per acre)

Density Scenario	Total Acres	Built Acres	Dwelling Units	Population
Low – 2.0/acre	7,605	6,084	12,168	36,945
Med – 4.0/acre	7,605	6,084	24,336	104,888
Hi – 6.0/acre	7,605	6,084	36,504	157,332

Medium-Density Residential Designation (6-8 dwelling units per acre)

Density Scenario	Total Acres	Built Acres	Dwelling Units	Population
Low – 6.0/acre	1,084	867	5,202	22,421
Med – 7.0/acre	1,084	867	6,069	26,157
Hi – 8.0/acre	1,084	867	6,936	29,894

High- Density Residential Designation (8+ dwelling units per acre)

Density Scenario	Total Acres	Built Acres	Dwelling Units	Population
Low – 9.0/acre	364	291	2,619	11,288
Med – 12.0/acre	364	291	3,492	15,050
Hi – 15.0/acre	364	291	4,365	18,813

Total Combined Dwelling and Population Projections for All Residential Designations

Density Scenario	Dwelling Units	Population
Low	21,249	91,583
Medium	37,047	159,673
High	52,845	227,762

Commercial Capacity Analysis. This analysis was performed to ensure that adequate space is set aside to accommodate commercial activities to support projected build-out populations and provide employment opportunities for current and future community residents.

Build-out population projections the consultant made based on proposed residential land uses were used in the analyses in this section. Assumptions are based on proposed land uses, land character, industry standards, and the consultant's experience on similar projects.

Ensuring that the community can accommodate commercial activities (retail shopping and service for current and future residents) is critical to quality of life and financial stability.

Assumptions

- 80 percent of commercial property will be developable
- A floor-to-area ratio (FAR) of .22 will be utilized (amount of actual building under roof for any given parcel)
- 36 square feet of retail space will be needed per resident
- 20 square feet of general services/commercial space will be needed per resident
- 961.67 acres have been designated for commercial uses

Based on the above assumptions, the 961.67 acres designated for commercial purposes would accommodate 132,985 residents. This number is near the mid-range density build-out scenario. Additional commercial property may need to be designated at some point if densities and/or population per household trends increase in the future.

Employment Capacity Analysis. The designation of an appropriate amount of property for employment uses is critical for the community's long-term sustainability. Employment property must be vigorously protected from being changed to residential uses since once residential development begins to occur it is very difficult to bring employment uses into the vicinity. Attracting and retaining employment uses is a regional concern throughout Yuma County as well as the municipalities.

The key factor that must be determined is what employment-to-population ratio the community desires. Typical bedroom communities will have between 2 and 3 jobs for every 10 residents (an employment-to-population ratio of .2 and .3, respectively). A well-balanced and sustainable economy needs to approach the .5 employment-to-population ratio. Some of these jobs are in the retail and service sector while others will be in manufacturing or technology firms (these types of jobs are anticipated to be developed in the employment-designated parcels within the community).

Assumptions

- 80 percent of employment designated property will be developable
- Scenarios have been run to reflect low, medium, and high employment-to-population ratios
- 500 square feet of space under roof will be required per employee
- Employment property will have a FAR of .20
- Approximately 6,339 acres of employment property is designated along with 329 acres of office designation. These figures have been combined to this analysis to total 6,888 acres

Low-Density Residential Scenario

Employment/Population Ratio	Projected Population	Jobs Required
.3	91,583	27,475
.4	91,583	36,633
.5	91,583	45,791

Medium-Density Residential Scenario

Employment/Population Ratio	Projected Population	Jobs Required
.3	159,763	47,929
.4	159,673	63,869
.5	159,673	79,837

High-Density Residential Scenario

Employment/Population Ratio	Projected Population	Jobs Required
.3	227,762	68,329
.4	227,762	91,105
.5	227,762	113,881

Based on the assumptions and the 6,888 acres designated for employment and office uses, 96,983 jobs could be accommodated in employment-designated areas. Additional employment would be located in commercial areas. Therefore, the planning area contains adequate employment areas to support local workforce demands.

4.6 GROWTH AREA ELEMENT

The San Luis Growth Area Element identifies those "target areas" suitable for planned multi-modal transportation and infrastructure expansion. It also identifies areas that will support a planned concentration of a variety of uses, such as residential, office, commercial, tourism, and industrial. The Element's goal is to be pro-active in planning a rational pattern of land development that is supported by adequate facilities and transportation. The San Luis Growth Area is smaller than the entire General Plan area but larger than the current incorporated boundaries.

San Luis has experienced explosive growth over the last few years and this growth is anticipated to continue. With the development of the proposed Port of Entry and the subsequent employment development, population growth will continue. Over the next 20 years, the San Luis Growth Area is anticipated to include the currently incorporated municipal area with expansion to the east to Avenue D and north to County 19 Street. There is currently considerable interest in key parcels within this area for new development as well as providing areas for parks/open space. Also, it allows adequate area to offer a mix of land uses and public facilities that a growing community such as San Luis requires.

5.0 TRANSPORTATION/CIRCULATION ELEMENT

5.1 ELEMENT STATEMENT

*The San Luis Transportation/Circulation Element is a multimodal circulation system that will support the current and future land use projected in the **San Luis General Plan**. The Element is intended to ensure that residents and visitors can move safely, efficiently, effectively, and conveniently throughout the planning area and connections regionally.*

5.2 INTRODUCTION

Given San Luis' rapid growth, it is essential that transportation facilities be programmed to meet future demand. San Luis' population growth has exceeded predictions, making transportation infrastructure upgrades essential to the City's continued expansion and business success.

Transportation is a critical component in any community's success. The transportation infrastructure planning provisions will help people travel where they want to go. These places can be identified as origins and destinations; in day-to-day life they are where people live, work, shop, and go for recreation. Because this plan sets the stage for future development, it considers where people are traveling today and where they will be traveling tomorrow. Additionally, the modes of travel (e.g., taxis, buses, and by foot) are also considered and planned to ensure that people have transportation options.

The City of San Luis recognizes that the transportation and circulation is a regional issue that requires regional cooperation. The City of San Luis, working through the YMPO and with surrounding communities, to identify regional transportation issues in the South Yuma County area and the development of cooperative programs to address areas of mutual concern between the agencies.

5.3 TRANSPORTATION/CIRCULATION ISSUE IDENTIFICATION

Effective Regional Partnerships for Circulation Improvements. The circulation network in the City of San Luis planning area is closely linked to regional transportation improvements and connections. Ensuring that major and minor arterials as well as supportive local roadways are adequately planned and built is critical to move people, goods, and visitors throughout the region.

New Border Crossing and Area Service Highway (ASH). The development of the new commercial border crossing and the ASH is very important for the City of San Luis to realize its economic

development potential. The Element assumes that these two key projects are developed within the planning timeframe.

Relationship between Land Use and Transportation. The future transportation network must provide sufficient roadway capacity to serve the proposed land use plan. Land use decisions made by the City of San Luis will impact the area's ability to move people and goods efficiently and safely through the planning area.

Ability To Offer Mobility Choices. As the City of San Luis continues to grow and traffic volumes continue to increase, the need to offer transportation choices will continue to grow. The development of alternative modes of travel will help to maintain air quality and protect neighborhoods from noise and traffic. Alternative modes include public transit, bicycling, and walking.

Develop a Safe Pedestrian-Oriented Environment. A large number of people cross the border daily on foot and walk throughout San Luis. As traffic increases in the planning area, the safety of pedestrians will become an issue. Additionally, a large number of children walk to and from school and activity areas. It is imperative that pedestrian and bicycle connections are identified to provide access to and from major corridors and activity areas. A pedestrian and bicycle system should utilize existing corridors and provide links between residential, schooling, recreational, and commercial areas.

Cost-Effective Circulation System. Prioritizing circulation improvements and identifying appropriate funding sources are important components of a capital improvement plan (CIP). The City of San Luis must develop a CIP that is directly tied to the General Plan in order to ensure that transportation improvements are planned and developed when needed.

5.4 TRANSPORTATION/CIRCULATION PLAN

In order to establish a transportation system for the future, it is important to understand the link between the proposed land uses and the demand on the transportation network. High-density land uses will generate a greater number of trips than a lower-density land use. Therefore, the transportation network must be coordinated with the development of planning area land uses, and future roadway networks must accommodate projected increases in traffic volumes associated with development of the land uses. Figure 5.1, Future Transportation/Circulation Plan (Existing Developed Area) and Figure 5.2, Future Transportation/Circulation Plan (Expanded Developed Area) depict the network to support the San Luis Future Land Use Plan.

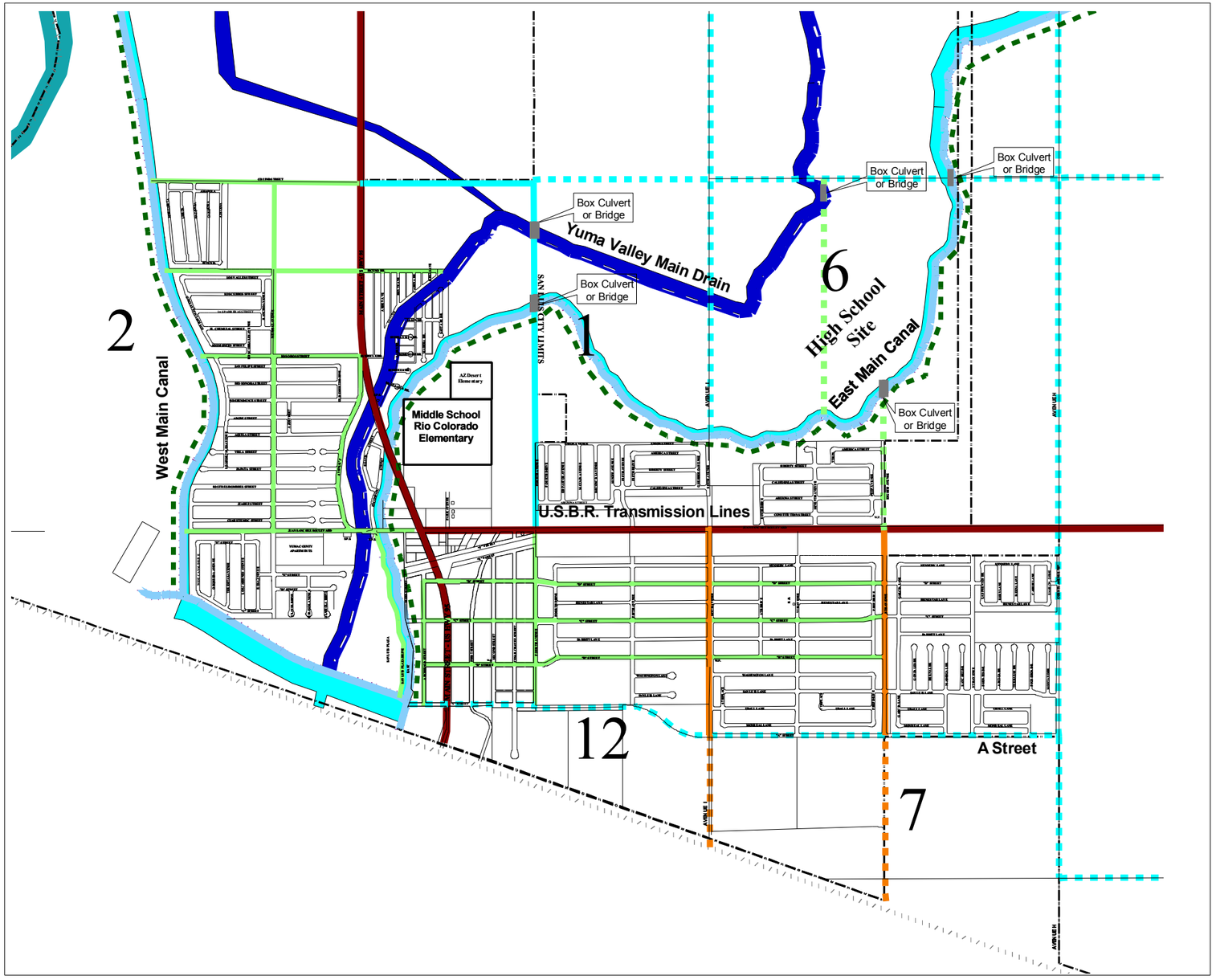
For transportation planning and specific roadway design criteria, highways are classified by function. Roadways are intended primarily to provide mobility from point-to-point, but also provide access to adjacent land uses. In the City of San Luis, there are five basic functional categories that can be used to classify roadways. These categories are consistent regionally and include:

- Major Arterials
- Minor Arterials
- Major Collector
- Minor Collector
- Local Roadways

Functional classification is defined as the process by which urban and rural roads are grouped into classes or systems according to the level of service they provide. The basic functional systems used in this classification are arterial, collector, and local. Using national and regional classification terminology,

these systems are sub-classified based on the trips served, the areas served, and the operational characteristics of the streets or highways.

The groups above comprise the hierarchy of functional roadway classes within the San Luis planning area. A brief description of each functional classification follows after the following figures.



City of San Luis
Arizona

General Plan Update
Future Transportation/ Circulation Plan
(Existing Developed Area)

Legend **Figure 5.1**

Street Classifications

- Major Arterial
- Minor Arterial
- Major Collector
- Minor Collector
- Proposed ASH Highway (4 lane)
- Proposed Major Arterial
- Proposed Minor Arterial
- Proposed Major Collector
- Proposed Minor Collector
- Proposed Multi Use Trail

December, 2001

N W E S

0 1 Mile

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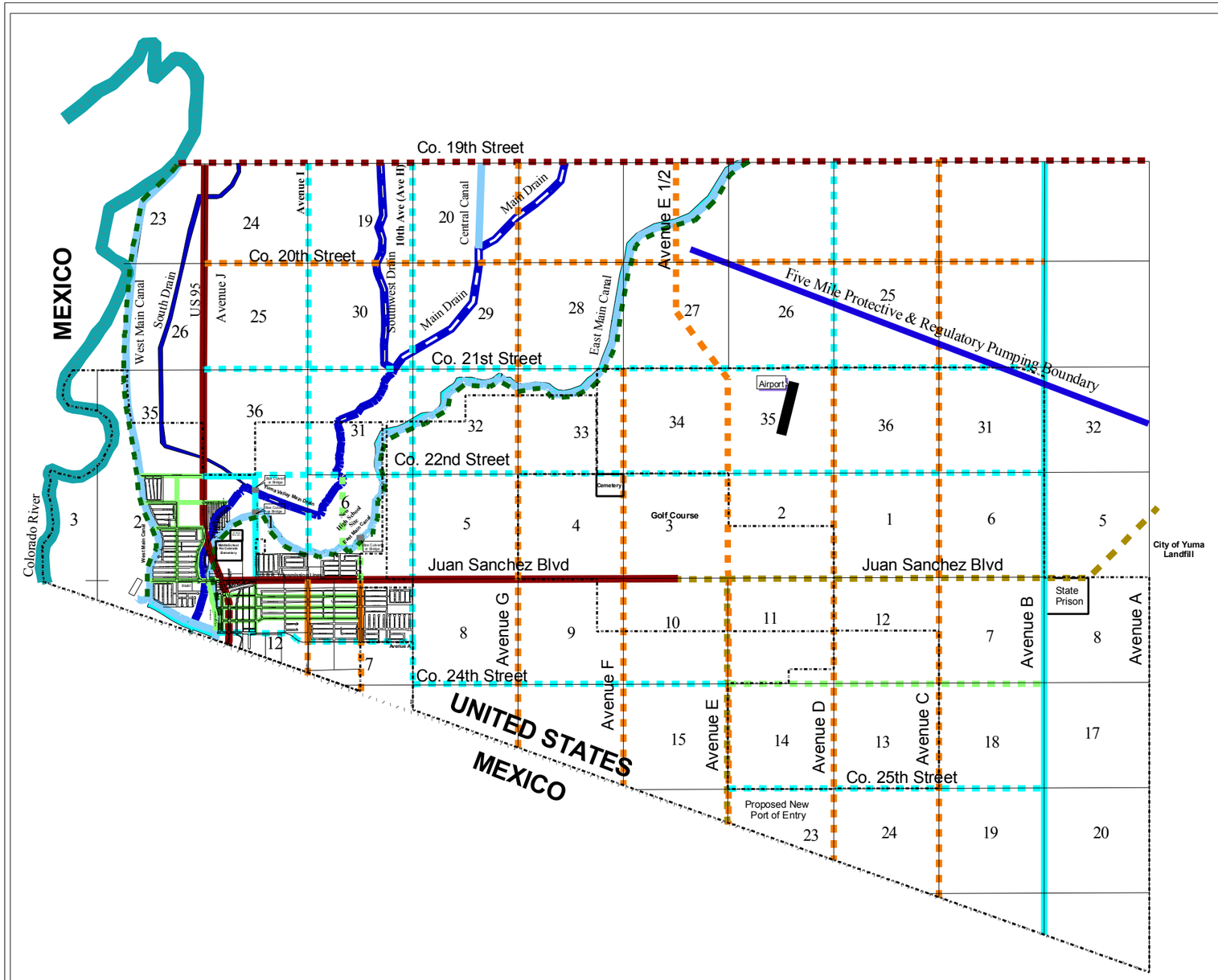

City of San Luis
Arizona

General Plan Update
Future Transportation/
Circulation Plan
(Expanded Development Area)

Legend **Figure 5.2**

Street Classifications

- Major Arterial
- Minor Arterial
- Major Collector
- Minor Collector
- Proposed ASH Highway (4 lane)
- Proposed Major Arterial
- Proposed Minor Arterial
- Proposed Major Collector
- Proposed Minor Collector
- Proposed Multi Use Trail

December, 2001

0 1 2 Mile

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Major Arterial: The major arterial is capable of carrying large traffic volumes and forms the primary roadway network within and throughout the region. They provide a continuous road system that distributes traffic between neighborhoods and central business districts. They also handle significant levels of urban travel between central business districts, outlying residential area and major inner-city communities, and major suburban centers.

Minor Arterial: The minor arterial system connects with the major arterials and provides trips of moderate length that distribute vehicles to collectors. Traffic movements are at high speeds and the arterials do not penetrate residential neighborhoods. Minor arterials are typically spaced at one-mile intervals and should provide adequate connection to major arterials.

Major Collector: The major collector provides traffic circulation within lower density areas and can provide direct access to arterials. Major collectors carry a higher traffic volume than minor collectors. Major collectors usually experience low side friction traffic and are striped for one lane in each direction. Developments may front directly on a major collector, and traffic signal spacing is usually two miles or greater.

Minor Collector: Minor collectors are usually located on quarter section lines and are intended to carry high-volume traffic through a residential neighborhood. On-street parking is usually prohibited and homes do not front on the collector.

Local Roadways: The local roadways consist of traffic movements between collectors and adjacent lands involving relatively short distances.

The following chart summarizes the functional classification designations for the City of San Luis and their corresponding cross-section characteristics. City accepted cross-sections are available at the City of San Luis.

Type of Street	Minimum ROW	Travel Path	Median Width	Sidewalks
Major Arterial	130 feet	42'/42' (2 lanes)	14' (raised)	Both Sides
Minor Arterial	110 feet	39'/39' (2 lanes)	14' (raised)	Both Sides
Major Collector	80 feet	27'/27' (1 lane)	14' (left turn lane)	Both Sides
Minor Collector	60 feet	20'/20' (1 lane)	None	Both Sides
Local Roadways	50 feet	36'	None	Both Sides

Roadway Level of Service (LOS)

Level of service (LOS) is a measurement of how well a roadway operates with LOS "A" being a free-flow condition and LOS "F" being forced flow or breakdown. Level of service on roadway segments is defined as follows:

Level of Service A – Free-flowing conditions. The operation of vehicles is virtually unaffected by the presence of other vehicles, and operations are constrained only by the geometric features of the highway and driver preferences.

Level of Service B – Indicative of free flow, but the presence of other vehicles begins to have a noticeable impact on speeds and freedom to maneuver.

Level of Service C – Represents a range in which the influence of traffic density on operations becomes marked. The ability to maneuver within the traffic stream, and to select an operating speed, is now clearly affected by the presence of other vehicles.

Level of Service D – Borders on unstable flow. Speeds and ability to maneuver are severely restricted due to traffic congestion.

Level of Service E – Operations at or near capacity, and quite unstable.

Level of Service F – Represents forced or breakdown flow.

The City of San Luis experiences a tremendous amount of border traffic. The City strives to maintain a LOS C or better on all roadways. Any roadway where the level of service falls to a LOS D, E, or F is considered congested and requires review for improvements. Capacity improvements or other remedial actions are usually recommended if the level of service is worse than C.

Public Transportation
The San Luis planning area is served by limited public transportation services. There is a regional transit system with a fixed route between San Luis and Yuma with a stop in Somerton. This transit service has been experiencing a steady increase in ridership, demonstrating the need for public transportation in South Yuma County.

The only national charter bus line available is Greyhound, which has four charters currently available to the Yuma County area. The Greyhound bus terminals are located in the City of Yuma. Daily departures occur early in the morning and evening. The routes allow residents to connect to destinations throughout the United States.

San Luis lacks many of the basic services, such as a variety of shopping and medical services, which increase transportation needs. Additionally, the large employment base in other parts of Yuma County creates significant transportation needs in San Luis. The City of San Luis must continue to work with regional stakeholders to improve and expand the transit system to ensure that it meets the growing local demands and feeds into the regional transit system.

Railroads
Yuma County is served by the Southern Pacific Railroad (SPRR), Union Pacific Railroad (UPRR), and Amtrak, which operates on the SPRR tracks. These rail facilities provide services within Yuma County, but do not provide major freight or passenger service within the City of San Luis. There is a rail spur from these facilities that serves agricultural interests on an occasional basis to the Gadsen area.

Airports
There are two airports serving South Yuma County, Rolle Airfield and Yuma International Airport. The Rolle Airfield was recently (June 1999) annexed by the City of San Luis and is maintained as a daytime use only, general aviation airport. The Rolle Airfield is within the San Luis planning area and as the area grows, the airfield's significance will change. The Somerton and ***San Luis General Plans*** have identified the Rolle Airfield as an important facility to support economic development efforts in South Yuma County.

Rolle Airfield is located on land that is owned by the U.S. Bureau of Reclamation and is licensed to and operated by the Yuma County Airport Authority (YCAA). The airfield is currently unattended (i.e., no permanent, on-site employees). Presently, Rolle Airfield serves a unique function in that it acts as a "reliever" airport for civilian general aviation aircraft by providing a safe site at which pilots can practice their flying skills away from the intense aviation activity of Yuma International Airport/MCAS. Additionally, the military still conducts aviation-related training at Rolle Airfield. In 1998, the Airfield's estimated and reported *(FAA Form 5010, Airport Master Record, Rolle Airfield, dated 12/03/1998)*

operations totaled 4,900, of which 2,000 (40 percent) were military, with the balance of 2,900 being reported as GA local operations.

According to a recently completed ***Rolle Airfield Airport Master Plan*** produced by the Yuma County Airport Authority, the Rolle Airfield is positioned to service the expanding economies of southwestern Yuma County. The projected continuation of exploding economic and population growth for San Luis should increase demand for general aviation facilities in southwestern Yuma County. Along with the potential for increased business and corporate aviation activity, this growing population should also bring an increase in the number of personal or recreational general aviation aircraft owners and pilots.

Highway 95, I-8 and County 3E easily access the Yuma International Airport. The airport serves residents of Yuma County and neighboring California residents, and provides connecting commercial flights to destinations in California and Arizona. The National Plan of Integrated Airport Systems identifies the Yuma International Airport as a joint use, primarily commercial service airport. The National Association of Foreign Trade Zones also identifies the airport as a Foreign Trade Zone. The airfield is also shared with the Yuma Marine Corps Air Station.

Multimodal System

The ability to walk throughout the community is very important to the residents of San Luis. Many residents, young and old, are dependent upon the ability to walk to local services within San Luis. Also, it is important to address visitors walking across from Mexico at the border. Currently, all new road construction within the City of San Luis includes sidewalks and handicapped-accessible ramps.

Like pedestrians, bicyclists are often overlooked when considering transportation facilities. Throughout Arizona, cycling is a very efficient mode of travel. Bicycling should be encouraged to reduce some of the negative aspects of urban growth. Noise, air pollution, and traffic congestion could be mitigated if more short trips were taken by bicycle or foot. Typically, a short trip that would be taken by bicycle is two miles; on foot, the distance commonly walked is around a half-mile. Currently, the City of San Luis does not have established on-road or off-road bicycle routes, but the City of San Luis will be providing on-road bicycle facilities on all new roadway construction with a functional classification of a collector or greater. Additionally, the pedestrian and bicycle system that San Luis desires to develop will link to a countywide, regional network. The planning and implementation of San Luis' system will be coordinated with the regional trail system.

Access Management

Access management is defined as the regulation of vehicular access to public roadways from adjoining property. Access management regulates the level of access control on roadways and is needed to help retain the capacity of public roadways, maintain public safety, and retain access to private land.

The concept of roadway functional classification is frequently related to land access. On one extreme, arterial roadways are primarily intended for mobility and not for land access. At the other extreme, local roadways provide primary access to developed land with little emphasis on mobility. Frequent driveways and curb cuts increase points of conflict, resulting in increased accidents and speed reduction. The City of San Luis should strive to achieve stable access restrictions that provide permanent protection for all major and minor arterial roadways.

Intersection Spacing. General access to the arterial network is provided by intersections with collector and local roadways, and major driveways to developments. The spacing of general access intersections will vary between the arterial functional classes, according to the level of land access that may be allowed.

Signal Locations. Traffic signal control at intersections is intended to permit crossing streams of traffic to share the same intersection by means of time separation. They also reduce the conflict points by alternating the right-of-way with traffic signals.

Traffic signals should be located at the intersection of major and minor arterial streets. Traffic signals at such locations should be incorporated with initial construction and activated with the opening of the roadways to traffic.

Traffic signals should be timed to allow progression in both directions of movement. Optimally, signal spacing should be located at consistent intervals along an arterial roadway to allow adequate two-way progression.

The City of San Luis will permit modification to signal spacing locations only upon review of traffic requirements and system impacts and will be at the discretion of the city engineer. Shifts of up to 50 feet in either direction from the required spacing point are allowable. Semi-actuated signals for major traffic generators may be located in excess of this distance, but signals should be coordinated with adjacent signals within 2,000 feet in each direction along the arterial street.

Street Alignment. The layout of street patterns should be based on an evaluation of a variety of factors. These should be sensitive to development, construction, and operation and maintenance costs. Impacts can be minimized by properly interrelating street layout to the natural topography. Other factors to be considered include soil characteristics, geologic conditions, drainage patterns, potential runoff qualities, length and character of the streets, types and locations of abutting land uses, and purpose of individual streets. The horizontal alignment should be based on terrain, sight distance, and probable roadway speeds. The vertical alignment should be easily negotiated with adequate sight distance. All arterial roadways should match the existing grid system and all collector roadways should tie into the arterial system at no less than one-half mile spacing.

Driveway Spacing. All driveways should be located to minimize the friction and conflicts with through traffic progression. Safe and consistent/predictable operation of the through street should be maintained. The distance between adjacent driveways must be adequate to allow driveway vehicles to safely queue, accelerate, decelerate, and cross conflicting traffic streams without excessive interference from through traffic, or traffic using adjacent driveways. Planning of driveways considers the intended land uses, parcel arrangement, and distribution and peak loading periods. Access points should be consolidated wherever possible to reduce conflict points.

The objectives of driveway control are to minimize side friction and conflicting movements. Basic principles of driveway/access include:

- Separate conflict areas
- Remove turning vehicle storage from through lanes
- Improve turn execution to avoid encroachment
- Minimize conflicts by restricting movements
- Provide sufficient sight distances
- Prevent driveway blockage
- Review driveway locations in plans to ensure compliance with standards

Desirable driveway spacing for major arterial streets is a minimum distance of 200 feet. Desirable spacing for minor arterial streets is 185 feet or more. Where these dimensions cannot be achieved, Table 5.1, Minimum Driveway Spacing presents minimum spacing requirements for arterial roads.

The spacing shown in Table 5.1 is between two-way driveways. Between one-way driveways, the spacing dimensions may be reduced by one-half, provided the inbound drive is upstream on the through roadway.

Where driveways are to be signalized, a minimum spacing of 1,200 to 1,500 feet to any other signalized intersection should be maintained. If the signalized driveway is a tee-intersection with a remote possibility of future extension of the fourth leg, a minimum spacing of 660 feet from the nearest signalized intersection may be acceptable, based on traffic signal warrants and local signal system capabilities. In any event, driveway signals are to be directly coordinated with any existing or planned signals within one-half mile of the signalized driveway. For traffic signal installations at commercial driveways it will be the property owner's responsibility to donate sufficient right-of-way to cover all traffic signal equipment.

Table 5.1, Minimum Driveway Spacing

(Center-Line to Center-Line)

Facility	Land Use	Minimum Spacing (ft)
Major Arterial		
	Commercial; High-Density/High-Activity	200
	Industrial/Office Park; Low to Moderate Activity	275
Minor Arterial		
	Commercial; High-Density/High-Activity	200
	Industrial/Office Park; Low to Moderate Activity	230
	Multi-Family Residential; Low to Moderate Activity	200

Source: Adapted from "Guideline for Control of Direct Access to Arterial Highways" FHWA, 1990

6.0 PUBLIC FACILITIES AND SERVICES/COST OF DEVELOPMENT ELEMENT

6.1 ELEMENT STATEMENT

The Public Facilities and Services/Cost of Development Element maintains a functional, efficient, cost-effective, and financially equitable system of public facilities and community services to serve an expanding population and employment base in a sustainable manner.

6.2 INTRODUCTION

Since the development of public facilities and service provision are so interrelated to the cost of development, these two elements have been combined. The Public Facilities and Services/Cost of Development Element of the ***San Luis General Plan*** provides an overview of the various public facilities and services provided by the City, outlines the role that the City will play in the development of facilities and services, and provides goals and objectives to ensure that the City is able to provide for the community as it develops. It is critical that San Luis has the necessary public facilities and services to support new growth and existing development as well as having adequate policies in place to determine what role the public sector plays in financing public services and facilities.

6.3 PUBLIC FACILITIES AND SERVICE/COST OF DEVELOPMENT ISSUE IDENTIFICATION

Water System Deficiencies. As outlined in the 1999 ***Water System Master Plan***, San Luis' rapid population growth has placed tremendous strain on the water system. High concentrations of iron and manganese have also been detected. Aggressive upgrade and expansion of the water system must be implemented to ensure adequate, high-quality water is delivered to current and future residents and businesses.

Strained Infrastructure. The majority of the infrastructure in the community is strained due to the exponential growth experienced in the last decade. Planning done just a few years ago has become dated and needs to be upgraded.

Public Safety Facilities and Services. Current facilities for police and fire protection need to be evaluated as the community's population has quadrupled in the last decade.

Recreation Facilities, Programs, and Social Services. San Luis has placed an emphasis on the development and maintenance of recreation facilities, programs, and social services. In fact, the

community has budgeted funding for these services similar to the fire departments. However, additional facilities, programs, and services are needed to accommodate the growing population.

Regional Partnerships. The City has been very involved in regional planning with Yuma County, the Greater Yuma Economic Development Corporation and the Yuma Metropolitan Planning Organization, and through the ACTION Zone process. This regional cooperation must continue to provide financing and efficient provision of public facilities and services. Partnering with other utility providers (e.g., Qwest, APS) will also be critical to ensure that the community has advanced telecommunications capabilities and reliable power.

Infrastructure Development Policy. The City must put in place policies and procedures to systematically plan for infrastructure needs and ensure that future growth pays for itself.

6.4 CURRENT SERVICES IN THE COMMUNITY

The following table identifies the major services that are provided in San Luis and the service provider.

Water	City of San Luis Public Works Department
Wastewater	City of San Luis Public Works Department
Police/Public Safety	City of San Luis Police Department
Fire Protection/EMS	City of San Luis Fire Department
Street Maintenance	City of San Luis Public Works Department
Solid Waste Collection	City of San Luis Public Works Department
Electricity	Private Utilities
Telecommunications	Private Utilities
Propane Gas	Private Utilities
Parks	City of San Luis Parks Department
Recreation	City of San Luis Recreation/Swimming Pool Department
Natural Gas	Southwest Gas Corporation

6.5 COST OF DEVELOPMENT PHILOSOPHY

It is the desire of the City to encourage development that requires little or no extension of services. Development that occurs within or directly adjacent to existing infrastructure or service areas is the most cost-effective since much of the investment in providing those services has already been made. Building outside of these existing service areas creates sprawl that is very expensive to the community unless the majority of costs are borne by the developer. These costs are not just the basic infrastructure, but also for public safety services that must expand service areas to accommodate the new development.

6.6 CURRENT DEVELOPMENT COSTS AND STANDARDS

In order to determine the burden that a particular development may place on a community, it is important to calculate the costs of providing services to the existing population. Industry standards can also be used to estimate the economic impacts of a specific development proposal. Utilizing these figures, additional costs of new development can be calculated and contemplated during the project review process.

The following figures have been developed using the City of San Luis Fiscal Year 2000-2001 Annual Budget and estimates made by the engineering consultant on this project. A population of 15,322 (2000 United States Census) was used to calculate the per capita costs. Enterprise funds such as water, wastewater, and sanitation directly charge for services and are not included in this analysis.

Table 6.1, Per Capita Costs of Basic Municipal Services in San Luis

Function	Operating Budget	Per capita Annual Cost
Police Protection	$1,862,090	$121.53
Fire Protection/EMS	$1,193,800	$ 77.91
Street Maintenance	$1,698,559	$110.86
General Administration*	$1,969,382	$128.53
Parks and Recreation	$ 876,539	$ 57.21

Source: Partners for Strategic Action, Inc. 2001

*Includes City Council, Social Services, Senior Center, Magistrate, Outside Services, Planning and Inspection, Finance

Based on this analysis, annual revenues necessary to support these basic municipal services must reach $7,600,370. This translates to over $506 per year in costs incurred to serve each resident in San Luis. Based on an average household size of approximately four persons per home, it costs the City over $2,000 per year to serve each household.

Table 6.2, Estimated Costs of Infrastructure Improvements

Improvement	Estimated Cost	Estimated Cost per Mile
Eighteen-Inch Sewer Trunk Line*	$44 per linear foot	$233,080
Water Lines**	$50.79 per linear foot	$268,189
Streets (per 14 foot lane)	$105 per linear foot	$554,400
Curb, Gutter, Sidewalks (5 Foot)	$20 per linear foot	$205,280

*per the City of San Luis Wastewater Master Plan dated July 1997
**average cost of 6-, 8-, 10-, and 12-inch water lines in system per the City of San Luis Water System Master Plan dated July 21, 1999

Source: David Evans and Associates, Inc. 2001

The ***City of San Luis Water and Wastewater Master Plans*** outline aggressive water and wastewater system expansion strategies. Based on the high cost of developing these facilities, it will be critical for the City to developing creative financing mechanisms and successful public/private partnerships.

6.7 COST OF DEVELOPMENT FINANCING OPTIONS

When the City determines that it is responsible for making capital expenditures, there are several mechanisms that can be utilized. Of course, paying for improvements out of current revenues is almost always desirable but often not feasible. It is critical that the City explores all options when determining the appropriate financing vehicle or combination of methods.

Financing Mechanisms Available for Public Service Expansion

Pay-As-You-Go out of Current Revenues
This is the optimum way to pay service expansion. Current revenues consist mostly of local sales and property taxes, state shared revenues, and grants. Unfortunately, revenues usually follow development, while most service expansions must occur prior to or simultaneously with development.

Grants and Low-Interest Loan Programs
There are numerous grants and low-interest loan programs available to San Luis from federal, state, and regional agencies. San Luis has actively pursued and received funding from, among others, Community Development Block Grants, the State of Arizona Heritage Fund, ACTION Zone, and the Governor's Office.

Revenue Bonds
Revenue bonds are a method of borrowing to finance service expansions. The bonds are paid back through future revenues that are legally pledged to the bond issuer. Revenues generally utilized for debt service are privilege taxes (sales tax), Highway User Revenues Funds (payments made to municipalities from state fuel taxes), and user fees. Bonding must be approved by a public vote. Revenue bonds are typically more costly to the municipality since future revenues, which can be uncertain, are the method of security and repayment.

General Obligation Bonds
General Obligation Bonds (G.O.) are a method of borrowing to finance service expansion. These bonds are based on the municipality's full taxing authority and are generally paid back through property taxes. The municipality may bond for up to 20 percent of its secondary assessed valuation with an additional 6 percent available for special projects. Bonding must be approved by a public vote. G.O. Bonds are the most cost-effective for the municipality since their security and repayment are based on property and the municipality's ability to levy against it to meet obligations.

Certificates of Participation (COP)/Municipal Property Corporations (MPC)/Civic Improvement Corporation (CIC)/Industrial Development Authority (IDA)
These are methods of borrowing that are paid back by municipal revenues. They are usually not legally tied to a specific revenue stream such as revenue bonds. These methods can be utilized by action of the City Council and are not subject to public vote.

Development Impact Fees
Fees that are established by the municipality based on the cost of expanding services to accommodate new development. These fees are then passed on to the project developer as part of the cost of the development. Development impact fees can be fairly narrow in scope (impact of development on the wastewater treatment facility) to very broad in scope (covering all utilities, public safety, municipal operations, parks/recreation/open space, library services, etc.).

User Fees
Fees that are charged for services such as water and sewer fees or park and recreation venue admissions. The fee structure can be developed to not only cover operating costs but to service the debt for financing expanded services as well.

Special Tax Districts
Commonly called Tax Increment Financing in other states, this funding mechanism is typically utilized for redevelopment and revitalization purposes.

7.0 PARKS AND OPEN SPACE ELEMENT

7.1 ELEMENT STATEMENT

The Parks and Open Space Element presents a comprehensive park and open space system that links to activity centers and makes regional connections.

7.2 INTRODUCTION

The Parks and Open Space Element provides the general guidelines to enhance the provision of parks, recreation, and open space within the San Luis planning area. The element identifies the City's philosophy relative to the desired level of facilities and their interrelationship with land use, transportation, and public facilities programming.

7.3 PARKS AND OPEN SPACE ISSUE IDENTIFICATION

Lack of Municipal Parks. The lack of funding for park development as well as operation and maintenance is a concern. As the community continues to grow, more park space is needed.

Zoning for Open Space. While open space is a designated land use on the general plan, the zoning ordinance does not have a specific zoning category for implementation. According to Growing Smarter Plus (Arizona state law), "A municipality shall not designate private land or State Trust land as open space without written consent or providing an alternative that is an economically viable designation (i.e., at least 1 du/ac) in the general plan or zoning ordinance." The ***San Luis General Plan*** recognizes and complies with this state statute.

Regional Coordination. Within the planning area, there are opportunities to link recreational amenities (e.g., trails, and parks) with surrounding communities (e.g., City of Somerton, Yuma County, and City of Yuma) via existing canals and the Colorado River. However, agreements do not currently exist between the City and other entities for operation and maintenance. Coordination with the Yuma County Open Space and Recreational Resources Element will be referenced when addressing such features as scenic corridors, bike paths, greenbelts, or other similar amenities.

Acquisition of Preservation Areas. The existence of sensitive land areas and wildlife habitats provides an opportunity for preservation of open space, but mechanisms and financial resources to acquire land do not currently exist.

7.4 PARKS AND OPEN SPACE PLAN

The Parks and Open Space Plan presents the hierarchy of parks and open space to serve the City's existing and future residents. The analysis of existing parks and recreation facilities included in this section is based on the National Standards and Guidelines from the National Recreation and Park Association (NRPA) that suggest park and recreation objectives based on population. The City of San Luis population utilized in this analysis is 20,000 (anticipated population within five years).

The San Luis parks are divided into the following classifications:

- ✓ Linear Park
- ✓ Pocket Park
- ✓ Area Park
- ✓ Neighborhood Park
- ✓ Community Park/Sports Complex
- ✓ Regional Park
- ✓ Specialized Facilities

These seven categories differ by size, service area, and park purpose.

Linear Park. A linear park is a continuous green corridor that is usually situated along river or canal banks. These types of parks are ideal for flood-prone areas because they can maximize the use of retention facilities for recreational and open space purposes. Linear parks may contain bikeways, walkways, or be left in a natural state. To function properly, the linear park should have a minimum of 50 feet along canal banks and should be larger when in proximity to a park or other recreational facility. Currently, San Luis does not have any linear parks. It is difficult to classify linear parks in a quantitative manner, so numerical standards do not apply to this type of park. It is more effective to classify linear parks on a qualitative manner based on community desire to have them available. When development occurs, every opportunity to locate linear parks in conjunction with the planned trail and park system will be examined. There are areas throughout the planning area that can eventually serve as linear parks. The north portion (i.e., north of 21st Street in the City of Yuma) of the East Main Canal is already developed. An extension of the linear park as far south as County 15th is planned. The San Luis Transportation/Circulation Plan identifies the East Main Canal and the West Main Canal as multi-use paths to tie into the regional system. These areas are identified in the City of Yuma as linear parks. Coordination with South Yuma County should occur to realize these regional connections.

Pocket Park. These small parks are atypical park facilities that serve a concentrated and limited population or specific groups, such as tots or senior citizens. The area of service for this park is less than ¼ mile. Size of this park is less than one acre. They should be located close to neighborhoods and in close proximity to apartment complexes. Storm water control basins offer opportunities for development of mini parks. These basins, if developed with limited facilities, offer significant recreational opportunities within neighborhoods.

Rotary Park, 1.5 acres; open space.
Independence Park, .67 acres; basketball courts, ramadas, security lighting, play apparatus, joint user/retention basin.
Beach Street Park, 1.2 acres; play apparatus.
Kennedy Park: .24 acres; play apparatus.
Salomon Park: 2.3 acres; open space, soccer fields, joint user/retention basin.
D Street Park: 2.2 acres; open space, soccer fields, joint user/retention.
Bienestar Park: 1.2 acres; open space, joint user/retention.
Cuatemoc Park: 1.7 acres; open space, ramadas, joint user/retention.

Neighborhood Park. This type of park provides space for recreational activities such as field games, court games, playground apparatus, picnicking, etc. The service area of this park is between ¼- and ½-mile radius (one square mile) and serves a population of up to 5,000 people in a neighborhood. The desirable size is from 5 to 10 acres. Desirable characteristics should include (1) suitability for active and passive activities; (2) accessibility to neighborhood population; and (3) geographically protected within the neighborhood, not adjacent to arterial streets yet within safe walking and bicycling distance. A neighborhood park may be developed in conjunction with a school facility, lessening the need to establish separate facilities.

Joe Orduño Park: 21 acres; pool, softball fields, baseball diamonds, soccer fields, basketball courts, volleyball courts, walking path, ramadas, security lighting, recreation center, gymnasium, play apparatus.
Joe Cabello Park: 3.1 acres; open space, basketball courts, walking path, ramadas, security lighting, play apparatus.
Friendship Park: 6.2 acres; open space, softball fields, baseball diamonds, basketball courts, ramadas, security lighting.
Elijio Ramirez Park: 4 acres; open space, soccer fields.

Community Parks/Sports Complex. These large parks may include areas suited for intense recreational facilities such as athletic complexes and large swimming pools. These parks may also include areas for outdoor recreation such as walking, picnicking, sitting, and other passive activities. These parks serve residents within two neighborhoods and ½- to 3-mile distance radius (9 to 16 square miles) and the size is from 30 to 50 acres. Community parks may also include features such as bodies of water. These parks should be easily accessible to residents within the service area.

Large Urban Park/Regional. These major parks are characterized by natural or ornamental areas used for outdoor recreation such as picnicking, play areas, walking, and camping. The service area for this park is an entire community where community or neighborhood parks are not adequate to serve the community's needs. A park of this nature will generally range in size from 50 to 75 acres. These parks may also include features that are contiguous to natural resources, such as lakes and rivers.

Specialized Facilities. Specialized facilities have unique recreational characteristics or qualities that are not usually associated with active or passive recreation needs. Types of specialized facility activities will include social and cultural events; assemblages or large gatherings; the performing arts; garden walks or grounds; historical living museums or other regionally significant portrayals of historic events or circumstances; historic trails; education or advanced training classes in studio environments for the arts, crafts, or special hobbies; or other unique opportunities for recreation. Facilities for such activities may be developed in cooperative or joint agreements with public agencies.

Cultural Center. The general purpose of a cultural center is to provide accommodations for social and cultural activities. It may vary in size from 15,000 square feet to 20,000 square feet, depending on types of activity areas and services provided. Facilities may include a large (5,000 to 7,000 square feet) social hall that could accommodate banquets, social dances, assemblies, arts and crafts shows and exhibits, and other large gatherings. In addition, restrooms, a warming kitchen, storage, maintenance, and circulation space may be included as necessary. San Luis has one social hall, the San Luis Community Center and Parks and Recreation Gymnasium, located at Joe Orduno Park.

Performing Arts Facility. A performing arts facility provides a center for theater and musical performances. The building may vary in size from 20,000 to 30,000 square feet. In addition to a theater complete with stage and dressing room, there will be foyer providing gallery space for artists' work; and restrooms, maintenance, storage, and office space as necessary. The City of San Luis does not have a performing arts facility, but the school district has a stage and dressing rooms as an option for city programs.

Visual Arts Facility. A visual arts facility may provide a variety of room sizes, all equipment with special facilities to house advanced classes in crafts or special hobbies (i.e., photography, audio-visual) and several small studios for painting and sculpturing. San Luis lacks a visual arts facility.

Recreational Facilities. Recreation is an important component to San Luis' quality of life. Each facility is described below and the level of service indicated for the current population. In addition, the need for future facilities is projected based upon the population projected for the medium density build-out scenario (159,673).

Tennis Courts. A standard size for tennis courts is 120 by 60 and they should be developed in groups of four or more. NRPA standard by population is one court for every 2,000 people. The City of San Luis has one tennis court. Therefore, San Luis has a deficiency of nine tennis courts. The build-out scenario would require 80 tennis courts to meet NRPA standards.

Softball Diamonds. These fields require a relatively flat turf area with skinned infield, backstop and protected team benches, a minimum foul line distance of 230 feet, spectator space for 75 to 100 people, and convenient parking for participants and spectators. NRPA standards are one field for every 3,000 people. The City of San Luis has two softball fields and one softball/baseball combination diamond. There are three deficiencies at this time. The build-out scenario would require 53 softball/baseball diamonds to meet NRPA standards.

Soccer Fields. The requirements for these fields are a relatively level turf area from 330 to 360 feet long and between 210 to 240 feet wide, depending on the level of play and age of participants. NRPA standards are one field for every 4,000 people. The City of San Luis has one soccer field and two youth soccer fields with plans for one more adult field at Elijio Ramirez

Park. The City of San Luis is deficient in two soccer fields at this time. The build-out scenario would require 40 soccer fields to meet NRPA standards.

Basketball Courts. These courts occupy a minimum of 85 by 50 feet. In addition, they may include bleachers and a scoring area. They may be indoor or outdoor. NRPA standards for outdoor courts is one court for every 2,000 people. The City has one indoor basketball court with several baskets and 2.5 outdoor courts. Therefore, the City does not have a deficiency. The build-out scenario would require 80 basketball courts/baskets to meet NRPA standards.

Volleyball Courts. Volleyball can be played on hard surfaces or in sand. Sand is preferred to reduce potential injuries. The minimum area defined for a volleyball court is 50 by 60 feet. NRPA standards for volleyball courts require one court for every 3,000 people. The City has one sand volleyball court and one indoor court. The City of San Luis is currently deficient by four courts in this area. The build-out scenario would require 53 volleyball courts to meet NRPA standards.

Playground Areas. Play apparatus includes a variety of playground equipment and open play areas and sitting areas for small children. The quantity and types of equipment used in these areas depend upon the type of park area being considered. Community parks would have one or more areas depending upon the population served. Neighborhood parks would have one area. NRPA standards include one play apparatus for every 2,000 people. The City of San Luis has one play apparatus at Joe Orduno, Kennedy, Cabello, and Friendship Parks. The City of San Luis is currently deficient in ten playground areas. The build-out scenario would require 80 playground areas to meet NRPA standards.

Exercise Facilities. An exercise facility typically has a walking path or track and exercise station for stretching and muscle building. NRPA standards for exercise facilities are one mile for every 7,500 people. The City does not have this type of facility. The build-out scenario would require 21 miles to meet NRPA standards.

Community Recreation Center. A community recreation center provides a variety of types and sizes of activities concurrently. It may accommodate 100 to 200 people for social assemblies, and usually include two additional rooms for 20 to 35 people to hold meetings or craft classes. Also contained in the center would be restrooms, kitchen facilities, storage areas, and offices. The building size can vary from 4,000 square feet to 8,000 square feet. The City currently has a 5,600 square foot gymnasium that doubles as a dance hall without kitchen facilities. The City is in need of additional space for meeting and additional activities at this facility.

Gymnasiums. Gymnasiums supply indoor sports facilities for sports such as basketball, volleyball, and indoor soccer, including restrooms and locker rooms. Adequate floor space should be provided to allow for two volleyball courts and a large

tournament basketball court with spectator space for 150 people. The City currently has this type of facility minus the locker room area.

Community Pool. The standard for pool construction is 25 meters by 25 yards and sometimes requires a separate diving area. The City has a facility of this type.

Schools. Many schools' playgrounds and athletic facilities serve the community's education needs, as well as being available to the general public for recreational programs. Generally, school facilities can be used for community recreation programs on a time-available basis. However, the City has no real control of the school system and the availability of its facilities.

Open Space. The existing and planned inventory of open space amounts to nearly 6,896 contained within the planning area. The San Luis planning area also has many retention basins that also serve to provide community open space. Following are the retention basins within the planning area.

Table 7.1, San Luis Existing Retention Basins

Retention Basins	Size
Las Fuentes	.9 Acres
Seventh Place	1.33 Acres
Sixth Drive	.75 Acres
Guerrero Avenue	1.26 Acres
Arizona Street	1 Acre
A Street (2 retention basins)	.43 Acres
Gladiola Drive	1 Acre
Los Jardines	1.2 Acres
Merrill Street	.92 Acres
Los Tres Hombres	.32 Acres
Hwy 95	.5 Acres
Rancho Los Oros (4 retention basins)	2 & 3 - .3 Acres, 1 & 4 - .4 Acres
Avenue J	.2 Acres

Table 7.2, City of San Luis Open Space Standards

Classification	Description	Service Radius/ Siting Criteria	Park Size	Determines LOS*
Natural Area Open Space	Preserves significant natural resources for open space and visual aesthetics/ buffering	Varies Based on resource availability and opportunity	Varies	No
Greenways/ Retention Basins	Open space linkages for parks within the community	Varies Based on resource availability and opportunity	Varies	No
Private Open Space Park/ Recreation Facility	Privately owned, yet contribute to the public system	Varies Dependent on requirements of specific use	Varies	Dependent on type of use

Source: Park, Recreation, Open Space and Greenway Guidelines; National Recreation and Park Association; 1996

* LOS (Level of Service) is the ratio of open space acreage expressed as acres/1,000 that represents the minimum amount of acreage.

If the City of San Luis desires to have a combined level of parks and open space area equivalent to 12 acres for a population of 1,000, a total of 1,920 acres would be necessary based on the medium-density range population projection presented previously. This acreage could be comprise additional landscaped retention areas within subdivisions, preserved sensitive land areas, floodplain areas, or major wash areas.

Based on the population projections identified in the Land Use Element, parks and open space requirements were projected. If the build-out population projections are realized in the General Plan, the following requirements for parks and open space must be met.

Land Acquisition and Park Development Plan

The Parks and Recreation Department is looking at acquiring two tracts of land for recreation areas. The first tract, owned by the State of Arizona, is located directly east of Joe Orduno Park. With its proximity to major arterial streets and residential areas, this tract of land would be ideal for a cultural center and additional athletic fields.

The second tract of land is a plot located at the southern end of the Los Jardines Subdivision. This tract of floodplain would be well-suited for athletic fields, play apparatuses, and outdoor volleyball courts. It is currently controlled by the Bureau of Land Management.

As far as infrastructure and equipment is concerned, the San Luis Recreation Center and the Aquatic Center are less than two years old, but the existing equipment and structures must be repaired and in many instances replaced.

Department Operation and Regulation

Currently, the Parks and Recreation Department comprises one Department Manager with two separate budgets. The goal of the Parks and Recreation Department is to offer well-maintained recreational areas to accommodate County-, City-, and community-sponsored events. The Parks and Recreation Department offers the following list of community activities:

Adults: Soccer, basketball, softball, swimming, swimming lessons, tennis, baseball, aerobics, volleyball, holiday celebrations, and a migrant worker health fair.

Teens: Teen dances and teen nights, soccer, basketball, softball, swimming, swimming lessons, tennis, baseball, volleyball, summer YMCA, D.A.R.E.-sponsored events, and holiday celebrations.

Summary. A year 2000 analysis of the existing parks and recreational facilities was done to help identify any deficiencies the City may have. The analysis was based on the national standards developed by the National Parks and Recreation Association that suggest quality and quantity levels of parks and recreation facilities based on population numbers.

A population figure of 20,000 for the city was used in the analysis in an attempt to identify recreational facilities needs. However, minor location deficiencies were identified. The findings suggest that the City of San Luis is currently within NRPA standards in number and types of parks; however, based on current park inventory, we must improve on the location and quality of open turf areas and on playground picnic shelter offerings. Substantial development of parks, open space, and recreational amenities would need to be developed should the community approach its projected build-out population of nearly 160,000.

There are 6,985 acres of park/open space designated in the San Luis General Plan. This would provide a level of service at the 12 acres per 1,000 population ratio for combined park and open space for 579,589 residents. This figure represents an acceptable range of park and open space land and if maintained, will easily accommodate all growth scenarios.

In order to offer more activities for the community, the Parks and Recreation Department must address budget and staffing needs.

8.0 IMPLEMENTATION PROGRAM

8.1 INTRODUCTION

Measuring the success of any plan or planning effort is dependent upon the effective implementation of action strategies. The ***San Luis General Plan*** serves as the blueprint or guide for the City's future development. However, it is critical that the plan is put into action through a comprehensive strategic implementation program. The City's role in implementing the plan is to provide direction to private and public sector development and investment. This chapter discusses the specific strategies for implementing, reviewing, and updating the ***San Luis General Plan.***

8.2 MONITORING THE GENERAL PLAN

The Planning and Zoning Department will be responsible for the regular monitoring of the Plan's implementation. At least quarterly, staff will provide a written status report to the Planning and Zoning Commission and City Council on development activity, the implementation program, and evaluation of the City's position in relationship to key performance indicators (e.g., jobs-to-population ratio, public safety response time) in the general plan. The quarterly reports will also assist in determining if any major or minor amendments should be initiated by the City. The potential City-initiated major amendments must occur before October of every year (i.e., major amendment review period begins June 15th and must be resolved by October of the same year). The Planning and Zoning Department will produce an Annual Report that provides an overview of the general plan implementation process. The Annual Report will be made available for review by residents and stakeholders.

8.3 GENERAL PLAN AMENDMENT

In 1998 the State of Arizona passed revisions to the section of law that defined general plan "major amendments" in terms of increases or decreases in land use intensity or in changes to major streets. This was combined with a requirement for a 2/3-majority vote for approvals by city councils. In February 2000, the statutes for General Plans were again modified. The new requirements took effect in May 2000. The new wording eliminated any reference to streets as well as land use intensity. The new language refers to *"substantial alteration of the municipality's land use mixture or balance as established in the municipality's existing general plan land use element."*

Defining Major Amendments to the General Plan. A major amendment to the ***San Luis General Plan*** is any proposal that would substantially alter the City's planned mixture or balance of uses. To be consistent regionally (i.e., Somerton, Yuma, Yuma County), the City of San Luis has created a compatible decision-making matrix to determine major and minor amendments to the general plan.

Defining Minor Amendments to the General Plan. "Minor amendments" to the general plan are considered as minor text changes and corrections that do not impact the substantive portions of the land use plan's mixture or balance. Minor amendments will involve a standard public review period with adoption by the City of San Luis Council. This process involves a public hearing by the City of San Luis Planning and Zoning Commission and one public hearing by the City Council. Minor amendments can be requested and heard at any time during the calendar year.

At the time of adoption, the ***San Luis General Plan*** provided a vision of development into the future based on the development in place, the needs of the community and the desire of property owners. It has been found that over time, visions change and new opportunities arise. Amendments have been made and will need to occur. Amendments to the ***San Luis General Plan*** are required in any situation where a proposed rezoning ordinance is not in conformance to the adopted general plan. Arizona law requires **conformance** with the general plan, which is to be in *agreement* and *harmony* with the Land Use Element.

The **Arizona Revised Statutes** define Conformance as (Section 9-462.01 Sub Section F):

> *A rezoning ordinance conforms with the land use element to the general plan if it proposes land uses, densities or intensities within the range of identified uses, and densities and intensities of the land use element of the general plan.*

Due to additional state-mandated requirements for public review for types of amendments, it is necessary to determine the level of impact, major versus minor, the amendment will cause.

The **Arizona Revised Statues** define major amendments as (Section 9-461.06 Sub Section C & Section 11-824 Subsection C):

> *A substantial alteration of the municipality's/county's land use mixture or balance as established in the agency's general/comprehensive plan land use element. The agency's general/comprehensive plan shall define the criteria to determine if a proposed amendment to the plan effects a substantial alteration.*

Amendments to the ***San Luis General Plan*** will be reviewed in light of their effect on the City's ability to provide a balance of land uses to meet the community's needs and the effect on the mix of land uses in relation to each other and to their location within the geographic area. In situations where the respective public agencies are familiar with numerous minor amendments to adjacent geographic areas, staff will determine if a major amendment would be more appropriate. An effect on the balance of land uses will be measured by the proposal's impact on each land use. They are measured by the loss or increase of acreage or developable dwelling units. Table 8.1, **Balance Matrix** outlines potential impact to each land use with a determination as to the type of amendment that may or may not be necessary. These matrices apply when the proposed use is not in conformance with the ***San Luis General Plan***; for example, a proposed gas station in the low-density residential land use designation. The effect on the mixture of land uses will be determined by reviewing whether the proposal would cause a change in land use designations that would create a significant development intensity difference between two or more neighboring land uses. An example of this would be a change from low-density residential to industrial in proximity to Rural Ranchette. An outline of compatible general plan land uses can be found in the Mixture Matrix.

Major Amendments: Major amendments will involve an expanded public review process. Local government agencies are limited by state law to one time per calendar year to review major amendments to the general plan. The deadline to submit major amendments is June 15th, in order to meet the noticing requirements for the City of San Luis.

Table 8.1, Balance Matrix – Where Proposed Use Is Allowed in Current General Plan Land Use Designation

Current Land Use	Result of Proposed Amendment	Amendment Not Needed	Minor Amendment	Major Amendment
Agriculture	Less than 1 acre and proposal adjacent to allowable land use	x		
	Loss of less than 20 acres of farm land		x	
	Loss of 20 acres or more of farm land			x
Residential	Loss or increase of less than 7 units and proposal is adjacent to allowable land use	x		
	Loss or increase of less than 400 dwelling units		x	
	Loss or increase of 400 or more dwelling units			x
Commercial	Loss of less than 2 acres and proposal adjacent to allowable land use	x		
	Loss of less than 40 acres of commercial space		x	
	Loss of 40 acres or more of commercial space			x
Employment/Office	Loss of less than 5 acres and proposal adjacent to allowable land use	x		
	Loss of less than 80 acres of employment space		x	
	Loss of 80 acres or more of employment space			x
Public Facilities	Loss of less than 1 acre and proposal adjacent to allowable land use	x		
	Loss of less than 20 acres of public facilities		x	
	Loss of 20 acres or more of public facilities			x
Open Space/ Recreation	Loss of less than 1 acre and proposal adjacent to allowable land use	x		
	Loss of less than 10 acres of open space/recreation		x	
	Loss of 10 acres or more of open space/recreation			x

Table 8.2, Mixture Matrix – Compatible Adjacent General Plan Designated Land Uses

	AG	RRR	LDR	MDR	HDR	COM	EMP	PF	OSR
Agriculture (AG)		Yes	Yes	No	No	No	Yes	Yes	Yes
Rural Ranchette Residential (RRR) 1-2 du/ac	Yes		Yes	No	No	No	No	Yes	Yes
Low-Density Residential (LDR) 2-6 du/ac	Yes	Yes		Yes	Yes	No	No	Yes	Yes
Medium-Density Residential (MDR) 6-10 du/ac	No	No	Yes		Yes	Yes	No	Yes	Yes
High-Density Residential (HDR) 10-20 du/ac	No	No	Yes	Yes		Yes	No	Yes	Yes
Commercial (COM)	No	No	No	Yes	Yes		Yes	Yes	Yes
Employment (EMP)	Yes	No	No	No	No	Yes		Yes	No
Public Facilities (PF)	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Open Space/Recreation (OSR)	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	

Example: A ten-acre project has requested a land use designation change from low-density residential (LDR) to commercial to support a retail establishment. Under this scenario, a maximum loss of 60 housing units would occur (10 acres x 6 du/ac). The surrounding land use designations are LDR to the east and south, medium-density residential to the north, and employment to the west. Using the Balance Matrix, this example would qualify as a minor amendment - a loss of between 7 and 400 housing units. However, using the Mixture Matrix, this change would be considered a major amendment since commercial and LDR have been designated as non-compatible uses. If the matrices indicate differing recommendations, the more stringent interpretation will be exercised. In this case, a major amendment would be required.

Procedure for General Plan Amendments. Per Arizona state statutes, the City of San Luis will consider major amendments to the general plan once each year. June 15th of every year will be the deadline to receive amendments to the general plan. This will allow adequate time for review and public hearings to consider major amendments to the general plan. The major amendment applications must be submitted within the same year they are heard and a 2/3-majority vote of the City Council is needed to approve them. In addition, all major amendments must meet the public involvement criteria outlined in the state statutes that reads, *"effective, early, and continuous public participation in the development and major amendment of the general plan from all geographic, ethnic, and economic areas of the municipality."*

8.4 GENERAL PLAN UPDATE

State law requires that a comprehensive update of the general plan be conducted and ratified by the citizens once every ten years if a community has a population over 10,000 population or if it is between 2,500 and 10,000 and has 2 percent per year growth rate for a ten-year period. San Luis does not currently meet these guidelines. With regular monitoring of the implementation program, the Planning and Zoning Department, the Planning and Zoning Commission, and the City Council will determine when comprehensive updates will be needed. Substantial population shifts, socio-economic changes, technological changes, and expansion of the planning area might indicate a need to update the plan sooner than the ten-year period.

8.5 GENERAL PLAN ACTION PROGRAM

A comprehensive action program is maintained by the City of San Luis. Annually, City staff and the Planning and Zoning Commission will update the General Plan Action Program prior to the budget process.

APPENDIX

APPENDIX A

San Luis General Plan
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