Shandon Community Plan

Shandon Community Plan

ADOPTED BY
THE SAN LUIS OBISPO COUNTY BOARD OF SUPERVISORS
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With special thanks to the Shandon Advisory Council

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Executive Summary

Purpose
The Shandon Community Plan establishes a vision for the future of Shandon that will guide land use, transportation and development over the next 25 years. The vision described in this Plan reflects the desires and opinions of people in and around Shandon. This Plan contains policies, programs, standards and guidelines to help achieve that vision and implement the goals and principles of the County General Plan.

Setting

The unincorporated community of Shandon is located about 18 miles east of Paso Robles in the northeasterly portion of San Luis Obispo County. Shandon is located just south of State Route 46 (SR 46), a regional east-west highway that links Highway 101 to Interstate 5. The community lies at the confluence of Cholame Creek and San Juan Creek where they form the Estrella River. Shandon is set against the Temblor Range to the east and the Cholame Hills to the north. It is surrounded by agricultural lands, including vineyards, row crops, and dry-farmed grain fields. Enhancing the town's picturesque setting are its landmark trees and charming community park near the center of town.

Shandon
Shandon is a small, rural farming community that in 2012 was home to about 1,200 residents. Since the original settlement in 1890, Shandon has grown to be a focal point for surrounding farms and a social service center for people in the area, with predominantly agricultural and service businesses for local people. Shandon has an elementary school and a high school, a fire station, a post office, a library, and churches, as well as a few commercial uses.

Vision
Small-scale, attractive lodging and highway-related services greet visitors and residents as they turn off Highway 46 and make their way into the town of Shandon along Centre Street, the "Main Street" of the community. A dense canopy of shade trees lines Centre Street and surrounding streets. This encourages walking and shopping within an active and vital downtown commercial corridor. Centre Street defines this corridor, which features a community park; schools; a post office; a library; churches; and a variety of shops, restaurants and other businesses to serve the community. Most residential neighborhoods are within one-half mile of Centre Street. This, together with parkways, shaded streets and a network of sidewalks and paths, creates a pedestrian-friendly community.

From 2011 to 2035, Shandon grows into a more complete community in terms of the variety and mix of land uses. However, it maintains a compact form and is developed in a manner that respects and retains its unique small-town character. Shandon offers a balanced mix of land uses including housing, commercial and services for residents, who no longer have to travel out

of town for most services. A variety of housing types and densities offers opportunities for housing that is enjoyed by people of different income levels. This includes housing that is affordable to those who work in Shandon.

Shandon is home to a variety of businesses. They provide opportunities for residents to work in the community in agriculturally-related services, emerging technology fields such as solar energy and other "green" businesses, small "start-up" businesses, and retail trades. New visitor-serving uses help attract more business and activity, but are balanced with businesses that serve community needs. Together, these businesses and services create job opportunities, help create a vital, local economy, and improve the lives of the residents of Shandon.

The community of Shandon prides itself in conserving energy and natural resources through sustainable and environmentally conscious programs and building practices. Through design and development, homes with southern exposures are enhanced with photovoltaic panels and oriented to obtain maximum solar exposure to increase energy efficiency. Homes, offices, and retail stores use high efficiency fixtures. Buildings operate at the highest industry standards, creating a high performance, comfortable, and memorable work and living atmosphere and quality of life.

Shandon conserves energy and natural resources in many other ways. For example, the town encourages new "green" and clean industry and businesses. It takes pride in planting a dense, extensive and beautiful canopy of shade trees that reduce temperatures and energy consumption and make summer days more comfortable. It employs the most effective measures to conserve water. The new sewer system has been designed to maximize groundwater replenishment. Another of Shandon's important resources is its creeks and river and their associated vegetation that is habitat for plants and animals. Shandon places a high priority on protecting those creeks for their biological and aesthetic value, and for their role in maintaining a healthy watershed.

Community Plan Goals

The following are the primary goals of this Community Plan. Members of the community helped shape these goals through the public process of preparing this Plan, and the goals are intended to generally reflect the desires of the community.

- Establish a framework for orderly growth and development that is consistent with the goals and policies of the San Luis Obispo County General Plan, including the principles for Strategic Growth.
- Promote orderly growth in harmony with the existing town, and revitalize the existing downtown in conjunction with other commercial opportunities in appropriate locations.
- Provide for a variety of housing types and densities, including housing that is affordable to those who work in Shandon.
- Plan for population growth consistent with the community's vision. Support the services and features desired by the community members, for example, a gas station, medical facilities, a larger market, drug store, restaurant/café, a variety of retail and service businesses, and other priorities identified by the community.
- Plan for growth through a mix of land uses that support the construction and financing of a community sewage disposal facility and other necessary infrastructure to accommodate the needs of the existing town and future development.
- Plan for a comprehensive circulation system consisting of a network of roadways, bikeways, pedestrian, and multi-use trails. Facilitate improvements to existing deficient roadways and

intersections (including highway access) and provide for the construction of new roadways to accommodate anticipated traffic.

- Plan for a balanced community with a variety of land uses, with emphasis on attracting new businesses that provide goods and services purchased locally by residents, and that provide the opportunity to live and work in Shandon.
- Provide for a safe and healthy community that encourages walking, exercise, use of outdoor spaces, and clean industry.
- Employ attractive community design and compact urban form that promotes safety and a sense of place.
- Protect agricultural and environmental resources.

Community Plan Features
This Community Plan is a comprehensive update of the plan for the Shandon Urban Area (and a few areas outside of the Shandon Urban Reserve Line) in the Shandon-Carrizo Area Plan to:

- Determine how much and where Shandon could grow through the year 2037.
- Change land use categories (zones) and combining designations (zoning overlays for sensitive resources, hazards, and other special features) in order to reflect the goals and policies of the Community Plan.
- Assess the potential for development of new business, service and employment opportunities and alternatives in order to foster economic development.
- Identify circulation, infrastructure and utilities needs for the community, including a wastewater treatment facility, and establish policies, phasing and a financing plan to fill those needs.
- Create community design guidelines and development standards that reflect the Community Plan's objectives and address the mitigation measures identified in the Environmental Impact Report (EIR).
- Establish future action programs to implement the goals and policies of the Community Plan.
- Establish criteria in the Community Plan for future development on certain large, undeveloped properties following preparation of master plans or specific plans.

Land Use, Population and Buildout
The Land Use Plan in Chapter 3 shows the Urban Reserve Line or URL--the 25-year growth boundary--and generalized land uses. This Plan provides for land uses that could allow the community's population to increase from approximately 1,200 residents in 2011 to a maximum of approximately 5,260 residents. This is the community's "buildout" population.

Buildout: Buildout is an estimate of the ultimate level of development (e.g., number of dwelling units and square-footage of commercial development) and accompanying population that can be expected according to the land uses envisioned by this Plan, including any special limitations on density or intensity of development. The estimated buildout may not actually be achieved due to such factors as physical or environmental development constraints on certain properties and market demand.

A mix of residential land uses is planned. These include Residential Suburban properties having one dwelling unit on one to five areas, Residential Single Family areas with mixed densities from two to 12 units per acre (average of 4.2 units per acre), and Residential Multi-Family areas developed at densities of 13 to 20 units per acre. In addition, Mixed Use areas could be developed with a combination of commercial and residential uses.

This Plan identifies land for commercial growth in the community in areas identified as Commercial Retail, Commercial Service and Mixed Use on the Land Use Map. The Plan allows for flexibility in the planned commercial areas by enabling Shandon to grow into its commercial areas as needed. As commercial development occurs, priority should generally be given to development of commercial land within the existing downtown core area along Centre Street before commercial development expands outward from there. However, commercial centers that require larger parking facilities may need to be located outside of the downtown. As the downtown grows, it is important that there is an adequate supply of commercial land so that future businesses do not become disconnected from the town's core.

Together, all of the Commercial land use areas could ultimately provide over 300,000 square feet of space for retail businesses, offices, medical facilities, limited services, and other civic and public assembly uses. The Mixed Use areas could accommodate uses that are similar to those in the Commercial Retail areas, but that are generally not parking lot-dependent. One Mixed Use area includes existing residences near the commercial core. This area may remain residential for an extended time until property owners desire to add businesses to their properties.

Three types of Commercial Service areas are envisioned. Visitor-serving and highway commercial uses are envisioned near the intersection of Highway 46 with East Centre Street at the northeast end of town, and near the Highway 46/West Centre Street/McMillan Canyon Road intersection. Job-generating business or commerce parks and support businesses are envisioned at locations along Centre Street at the west and east ends of town. Those areas could accommodate jobs for up to 300 people. An additional area is identified as a flexible land use area that could develop with residential uses if other Commercial Service land becomes available in the community. In total, the Commercial Service areas could ultimately accommodate over 175,000 square feet of floor area.

The Community Plan also provides for a variety of other land uses. These uses would occur in areas identified as Public Facilities (publicly-owned or operated facilities), Recreation (public parks), Agriculture (land under Land Conservation Act contract and existing agricultural land north of the Estrella River), and Creek Area and Habitat Area (corresponding to the creek and river areas and an area along the community's eastern edge). Among the planned land uses are 18 acres of parkland, in addition to the existing 11-acre community park.

Public Utilities and Services

The Community Plan envisions substantial improvements in public services, primarily water, wastewater and transportation. Additional water storage facilities are needed to provide for adequate emergency and fire protection storage for the existing town, as well as for the demands of planned new development. The existing water storage reservoir in the eastern portion of town will need to be supplemented by a new water storage facility in the same vicinity.

A wastewater treatment facility is needed to accommodate the population resulting from the residential and commercial development envisioned by this Plan. New development is to fund construction of a wastewater collection, treatment and disposal system to serve that

development, and provisions should be made to extend sewer service to the existing town. The Land Use Map identifies general alternative locations for the treatment plant.

The community's transportation system will need to be improved to accommodate additional vehicle and pedestrian traffic as the community grows. Examples of needed improvements include improved access to Highway 46, improvements to Centre Street, a pedestrian crossing of San Juan Creek, and realignment of old San Juan Road.

Other utility improvements envisioned with this Plan are a comprehensive storm drainage and groundwater recharge system, low-intensity street lighting, and extension of public utilities throughout the future urban area. The Plan also promotes the use of energy efficiency measures such as "green building," and use of renewable energy such as solar and wind power.

Chapter 8 is a public facilities financing plan. It identifies the tentative costs and specifies financing methods for the major public facilities needed to support the community as it grows: a wastewater treatment plant; improvements to the water system; and circulation improvements at the intersections of East and West Centre Street with Highway 46, improved access across the San Juan Creek, and other improvements.

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Chapter 1: Introduction

1.1 Purpose

The Shandon Community Plan establishes a vision for the future that will guide development over the next 25 years. The vision described in this Plan reflects the wants, needs and opinions of people in and around Shandon. This Plan contains policies, programs, standards and guidelines to help achieve that vision and implement the goals and principles of the County's General Plan.

The Community Plan seeks to balance the needs of the growing population with preservation of natural resources and agricultural uses, while allowing sufficient flexibility to accommodate changing economic conditions.

The Shandon Community Plan serves as a bridge between countywide goals in the San Luis Obispo County General Plan and the specific needs of the community. Based on Shandon's physical, demographic and economic characteristics, the Community Plan serves as the basis for land use decisions and other related actions. For implementation, the Plan relies on tools such as the San Luis Obispo County Land Use Ordinance, land division regulations, capital improvement plans, and a variety of special purpose ordinances and programs. Development requiring County approvals such as land divisions and land use permits must be consistent with the Shandon Community Plan and its standards.

1.2 Setting

The unincorporated community of Shandon is home to approximately 1,200 residents (2012) and is located in central California about 18 miles east of Paso Robles. The community lies at the confluence of Cholame Creek and San Juan Creek where they form the Estrella River. Just north of the community is State Route 46 (SR 46), which is a regional east-west connector that links Highway 101 to Interstate 5. The community is set against the Temblor Range to the east, the Cholame Hills to the north, and agricultural lands to the south and west. (See Figure 1.1, Regional Map).

Shandon Urban Area

The town of Shandon is located in the northern portion of the Shandon-Carrizo Planning Area. It is primarily a rural farming community surrounded by various agricultural lands. Since the original settlement in 1890, Shandon has grown to be a focal point for surrounding farms and a social service center for people in the area. The planning for the original townsite of Shandon was done by the West Coast Land Company after its successful operation in Templeton. However, Shandon has remained a small community with predominantly agricultural and service businesses for local people.

Study Area

The County Board of Supervisors approved a Study Area, as recommended by the Shandon Advisory Council, of approximately 2,081 acres. Centre Street bisects the Study Area in an east-west direction and acts as the primary circulation route through the community. Figure 1.2, Study Area Map, shows the Study Area boundary, the Urban Reserve Line (URL) as configured in 2012 and the URL to be adopted with this Plan.

The Shandon Community Plan generally applies to the area within the adopted URL. However, there is one area of proposed land uses and various proposed public facility improvements that are located outside of the URL, but that are addressed in this Plan because of their essential connection to planning for Shandon. Those areas and improvements include the Commercial Service area northwest of the town near the intersection of West Centre Street and Highway 46,

the wastewater treatment facility site, and other public facility improvements such as access improvements at Highway 46 and West Centre Street and a water tank near the east end of the town. The precise zoning or land use category for the northwest Commercial Service area is shown on the Official Maps for the rural Shandon-Carrizo area. The official development standards for that area are found in the community planning standards for the rural portion of the Shandon-Carrizo Area Plan in the Land Use Ordinance.

1.3 Plan Structure and Organization

The Plan's Structure
A community plan is both a policy document and an implementation document. Accordingly, this Plan includes a vision statement and policies that are the basis for the implementing tools, which are programs, standards and guidelines. Policies are statements that expand on and implement the goals in the County General Plan. Policies, in turn, are implemented by programs, standards and guidelines.

Programs are recommended actions, rather than mandatory requirements. A program may be initiated by the County or other agency or group. Since many recommended programs involve making public expenditures or securing other funds, their initiation will depend on the availability of funding.

Standards are requirements that must be complied with and included in the design of development projects as applicable. Standards assure consistency throughout the community or within a particular land use category or combining designation.

Guidelines are recommended development features or techniques that help achieve a desired effect through alternatives to precise or fixed standards.

Policies and programs are located at the end of each chapter of this Plan and guidelines are contained in Chapter 9. Standards are found in Article 9 of the Land Use Ordinance, Title 22 of the County Code.

The Plan's Organization is as follows:

Executive Summary

Chapter 1 (Introduction) describes the purpose of the Shandon Community Plan, setting, plan structure and organization, vision, community plan goals and principles, community participation, and authority.

Chapter 2 (Population and Economy) provides details regarding the population, economic policies and programs, and economic development for the community.

Chapter 3 (Land Use and Neighborhood Design) describes land use policies and programs for land uses such as residential, commercial, industrial, recreational, institutional, agricultural and creek and habitat areas. It also includes a vision for the Centre Street commercial corridor. This chapter also addresses land uses in specified Master Plan Areas.

Chapter 4 (Natural and Cultural Resources and Conservation) outlines policies and programs that deal with biological resources, Sensitive Resource Areas, water resources, cultural and historical resources, and energy conservation.

Chapter 5 (Transportation and Circulation) describes the circulation pattern throughout the community for all modes of transportation, including vehicular, pedestrian and bicycle. This chapter establishes transportation and circulation policies and programs. It includes street classifications and street sections; public street improvements; traffic control and calming; bicycle, pedestrian and recreational trail facilities; and public transit.

Chapter 6 (Public Facilities and Services) describes the key services and facilities needed to serve the community, including schools, parks, fire protection, law enforcement, a library, a health clinic, and solid waste disposal.

Chapter 7 (Infrastructure and Utilities) discusses the major infrastructure and utilities needed to serve the community. This chapter addresses the water system, wastewater, storm water, flood management, and utilities.

Chapter 8 (Public Facilities Financing Plan) identifies the tentative costs and specifies financing methods for the major public facilities needed to support the community. The major public facilities include a wastewater treatment plant, improvements to the water system, and a number of circulation improvements such as improvements at SR 46 and improved access across the San Juan Creek.

Chapter 9 (Implementation) describes how the Community Plan is administered and how its policies will be implemented. The chapter also includes development guidelines, a table that identifies where and when mitigation measures from the Environmental Impact Report are applicable, and a consolidated implementation program table.

Figure 1.1
Regional Map

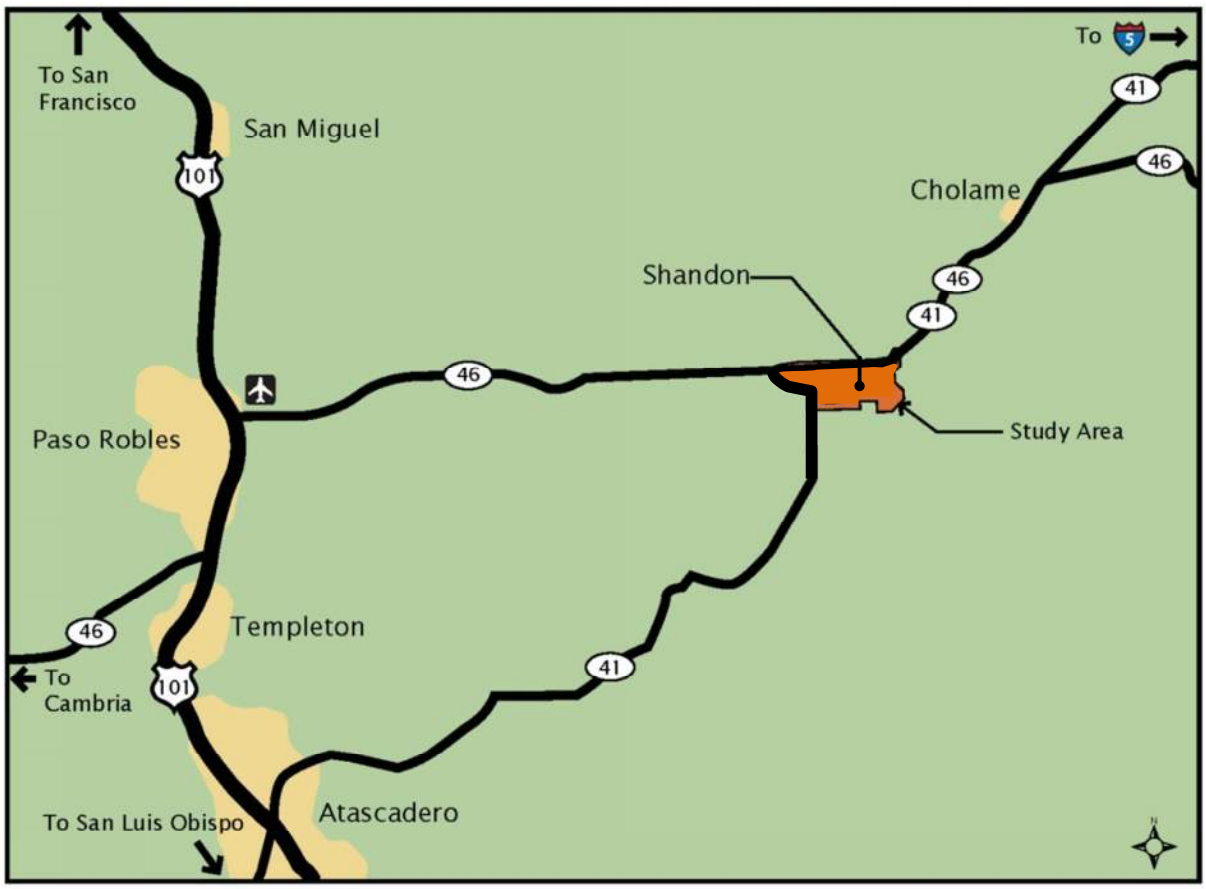
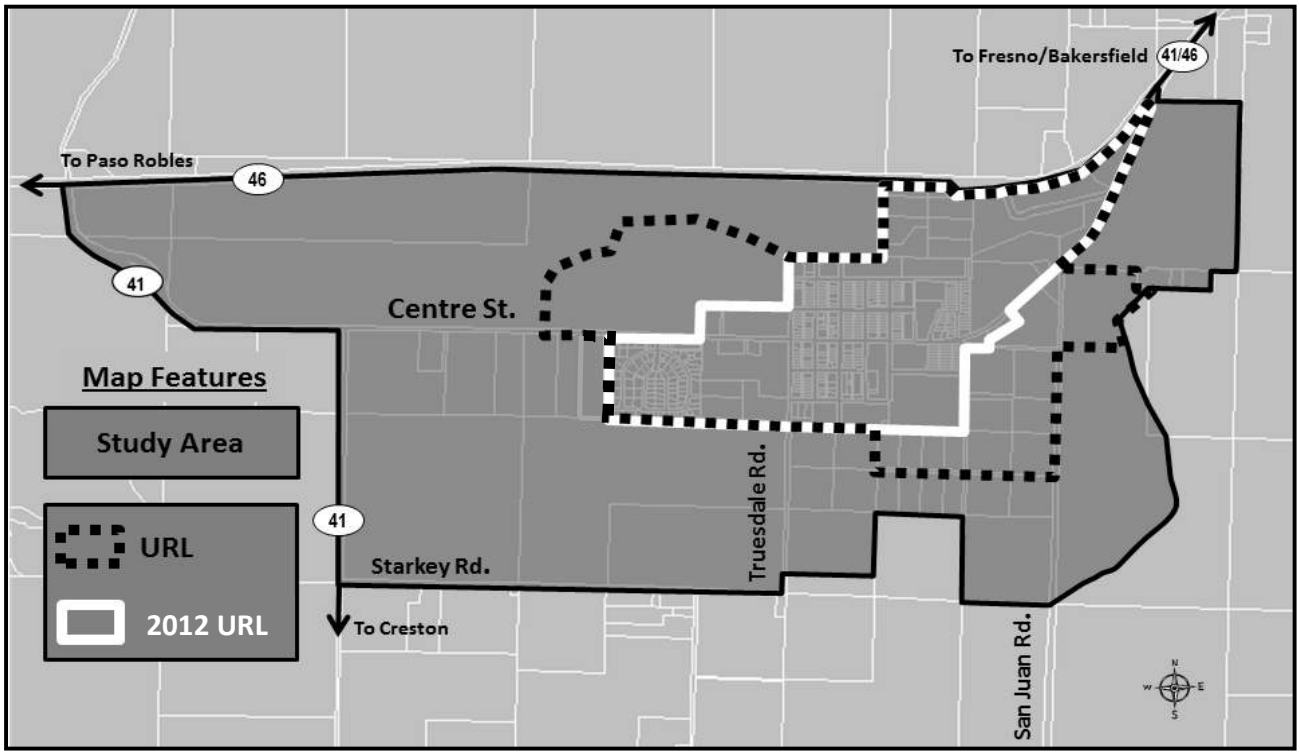


Figure 1.2
Study Area Map



1.4 Vision

The Community Plan reflects the community's preferences for promoting balanced growth that provides new opportunities to meet the needs of Shandon's residents. At the same time, it embraces common-sense approaches to achieve a sustainable community. Close-knit neighborhoods should interconnect to encourage walking and bicycling from residential areas to small commercial areas and a rejuvenated downtown. Residents should have opportunities to live and work in Shandon. The town should remain compact in form without encroaching onto nearby farmland, flood prone areas and hillsides.

The Community Plan serves as a guide for directing and coordinating planning decisions and physical changes within the community of Shandon. This Plan also defines the desired character and quality of development and directs the process for how development should proceed. The policies, programs, and guidelines in this Community Plan, and the standards found in Article 9 of the Land Use Ordinance define the manner in which Shandon's priorities and vision will be achieved.

Shandon In 2036

Shandon has become the eastern gateway to San Luis Obispo County. It is here where visitors stop to sample local agricultural products or rest on their journey between the Central Valley and the Central Coast. They experience a small-town atmosphere that is fused with the conveniences of urban living. Residents enjoy many opportunities to shop locally, work within the community, and walk to and from their neighborhood park, schools, and shopping center though inviting neighborhoods lined with trees. New businesses have been established along Centre Street and several older homes have been converted to a "live-work" setting. A network of sidewalks and landscaped trails connect the community's public spaces together, creating a walkable community with a sense of place. Through well-planned commercial development, Shandon is emerging with a prosperous economic and employment base.

1.5 San Luis Obispo County General Plan Goals and Principles

This Plan is part of and consistent with the San Luis Obispo County General Plan. The County of San Luis Obispo's General Plan outlines a number of goals, principles, objectives and policies designed to guide the physical, economic and environmental growth of the County. The following is an overview of the key policies and Strategic Growth Principles (SGP) from the General Plan that provide the starting point for the Shandon Community Plan.

Environment and Agriculture

1. SGP - Preserve open space, scenic natural beauty and sensitive environmental areas. Conserve energy resources. Conserve agricultural resources and protect agricultural land.

2. Agriculture Element Policy 11 - Maintain water resources for production of agriculture.

3. Agriculture Element Policy 24 - Discourage the conversion of agricultural lands to non-agricultural uses.

4. Conservation and Open Space Element, Biological Resources Policy 1.1: Protect sensitive biological resources such as wetlands and wildlife movement corridors.

5. Conservation and Open Space Element, Energy Policy 2.3 - Promote water conservation for all water users in the county to reduce the amount of energy used to pump and treat water and wastewater at public water and wastewater treatment and distribution facilities.

6. Conservation and Open Space Element, Water Resources Policy 1.12 - Accurately assess and mitigate the impacts of new development on water supply.

7. Conservation and Open Space Element, Water Resources Policy 1.14- Avoid net increase in water use.

Population and Growth

8. Conservation and Open Space Element, Air Quality Policy 1.1 - Encourage compact land development by concentrating new growth within existing communities and ensuring complete services to meet local needs.

9. SGP - Strengthen and direct development towards existing and strategically planned communities.

10. Conservation and Open Space Element, Open Space Policy 1.7 - Protect open space resources by guiding development away from rural areas to more suitable areas.

11. Economic Element Policy 1a - Pursue economic development activities that will benefit the economy while maintaining the quality of life.

12. Safety Element, Water Hazards Policy S-8 - Strictly enforce flood hazard regulations both current and revised.
13. Safety Element, Fire Safety Policy S-13 - New development should be carefully located, with special attention given to fuel management in higher fire risk areas.

Land Uses and Community Design

14. SGP - Foster distinctive, attractive communities with a strong sense of place.

15. SGP - Encourage mixed land uses.

16. SGP - Create a range of housing opportunities and choices.

17. SGP - Take advantage of compact building design.

18. Conservation and Open Space Element, Visual Resources Policy 6.1 - Ensure that new multi-family residential, mixed-use, and commercial or other non-residential development in the urban and village areas is consistent with local character, identity, and sense of place.

19. Housing Element Policy 1.1- Designate a sufficient supply of land for housing that will facilitate balanced communities, including a variety of housing types, tenure, price, and neighborhood character.

20. Parks and Recreation Element Policy 2.1 - Provide parks which are aesthetic and consistent with community needs.

Circulation

21. SGP - Create walkable neighborhoods and towns.

22. SGP - Provide a variety of transportation choices.

Administration

23. SGP - Make development decisions predictable, fair and cost-effective.

24. SGP - Encourage community and stakeholder collaboration.

25. SGP - Strengthen regional cooperation.

1.6 Community Participation

In an effort to foster input and identify goals and objectives of community members, applicants, and the County, a series of meetings and workshops were conducted in Shandon. These meetings helped in the development of community design and planning principles, land use and circulation plans, streetscape improvement plans, development standards, and implementation programs. Property owners, planning professionals, engineers, elected officials, and the general public participated and provided input during these workshops. The County of San Luis Obispo and its planning and engineering consultants developed land use alternatives derived from the workshops and meetings. These alternatives were further refined and modified during a progression of public meetings held together with Shandon Advisory Council (SAC) meetings. In addition, the community developed through previous efforts a set of Community Priorities that have been included, where feasible, throughout the Community Plan. The complete list of priorities, as supported by the Shandon Advisory Council, is contained in Appendix A.

Workshop #1

The first workshop, held at Shandon Elementary School, provided an opportunity for residents, project applicants and County staff to interact and collectively develop land use alternatives for the Shandon Community Plan. The workshop agenda included community participation exercises to express thoughts and desires for the community. The general theme that was echoed consistently by the participants in the workshop was that there are needs for public safety services, infrastructure improvements, and overall beautification. Comments included the desire to focus on pedestrian walkability and to achieve a mix of uses that would make use of underutilized parcels. The facilitated workshop assembled valuable information which later defined the character of the three land use alternatives that were presented at the second workshop.

Workshop participants identified their favorite recreational and community amenities. The results are as follows:

<u>Top Five Recreational Amenities</u>

- Walking Trails
- Community Center
- Bike Trails
- Skate Park
- Bandstand

Top Five Community Amenities

- Gas Station
- Sheriff Sub-station
- Health Center
- Coffee Shop
- Bar/tavern (Participants were also asked to vote for their least favorite item. Bar/Tavern also received a significant number of votes for least favorite.)

Workshop # 2

The focus of the second workshop, held at Shandon High School, was built around the presentation of the Community Plan Alternatives. All of the charrettes, workshops, and meetings up to this point were planned to gather information from the three major applicants or landowners (one of those applicants subsequently withdrew from the planning process), community members, and County representatives in order to develop a comprehensive vision. The workshop meeting agenda included a quick summary of the questionnaire results, the outcomes of the exercises from Workshop #1, and a Visual Preference Survey (an idea-sharing segment to determine community preferences regarding building types and character).

1.7 Authority

Content, adoption and subsequent amendment of a community plan are governed by California Government and Public Resources Codes. A community plan is adopted as a general plan amendment and may only be amended four times per calendar year, per Section (§) 65358 of the California Government Code.

Section 21083.3 of the California Public Resources Code requires a community plan to include or provide reference to each of the seven mandatory elements (Land Use, Circulation, Housing Noise, Conservation, Open Space and Safety) of a general plan specified in §65302 of the California Government Code. A community plan need not address all the issues specified in §65302, if the overall general plan, in this case, the San Luis Obispo County General Plan, satisfies these requirements. A community plan, however, must contain specific development policies and identify measures to implement those policies.

Community plans should be updated periodically to conform to changes in California law and other legal requirements, and to reflect changes in local population, land development patterns, and public sentiment. In addition, the conditions and assumptions that form the basis of a community plan may change due to fluctuations in population, the economy, development in the surrounding region, and other factors. The 2011 update of the Shandon Community Plan is the first significant amendment to the Shandon-Carrizo Area Plan and the Shandon URL since their original adoption in 1980.

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Chapter 2: Population and Economy

This chapter profiles Shandon's population and socioeconomic characteristics and describes past trends, present conditions and future projections. The following population and demographic profile has been prepared using information obtained from the San Luis Obispo County Housing Element, the U.S. Census data, and the San Luis Obispo Council of Governments (SLOCOG).

When communities undertake a long-range planning program such as a community plan, a critical part of the entire process is projecting future growth. Data is assembled describing the existing population and base economy, a land use alternative is selected, and absorption forecasts are made. The community plan is then designed to accommodate anticipated growth resulting from the land use plan (Figure 3.1).

2.1 Population

Shandon's population as of the 2000 U.S. Census was 986, an increase of 25.3% from 1990, which is an annual growth rate of 2.3%. Shandon's population, based on the 2010 U.S. Census, was 1,194, an increase of 21.1% from 2000, which is an annual growth rate of 1.9%. San Luis Obispo County's population increased 14% between 1990 and 2000 and 13.5% between 2000 and 2010. San Luis Obispo County's growth *rate* has been declining since the 1980's, with a greater portion of the growth due to net migration. Birth rates have declined along with a decrease in young professionals with families. Net migration accounted for approximately 75% of the county's growth in the 1990's and approximately 80% since 2000. Growth in Shandon has been attributed to an intensification of agricultural activity in the region combined with a housing shortage countywide. Shandon is relatively affordable when compared to surrounding communities.

The potential population of Shandon could increase from an existing population of about 1,200 to 5,260 at plan buildout. Table 2.1 shows the population projection under this Community Plan. Projected development in the URL could result in 1,078 additional dwelling units under the 25-year buildout of the Community Plan. Population is based on 3.66 persons per household. Buildout is an estimate that may vary depending on a variety of factors such as actual development density, physical constraints and market demand.

Table 2.1: Population Projection

Year	Total Population	Percent Increase	Annual Growth Rate
1990	787	---	---
2000	986	25%	2.3%
2010	1,194	21%	1.9%
2035	5,260	341%	6.1%

Note: The 2010 population has been adjusted from the information provided by the 2010 Census because the Census Designated Place (CDP) for Shandon is larger than the Shandon URL.

Population Highlights
In general, Shandon has a younger population than the county as a whole, with a significantly lower percentage of senior citizens. According to the 2010 U.S. Census, about 42% of Shandon's population was under the age of 25, while only about 7% of the population was over the age of 64. For the county as a whole, these age groups were about 34% and 15% of the population, respectively. The percentage of working-age residents (25 to 64 years old) is essentially the same as the county as a whole at about 51%. Knowing a community's age-distribution can aid the community in providing adequate services for the various age groups.

2.2 Economic Development

Historically, most businesses in Shandon have been agriculturally related. Although Shandon is served by a post office, an elementary school, a high school, a branch County library and two small markets, much of the community's business and service needs are not met locally. This is evident by the number of employees that commute out of Shandon each day and by the need to drive to Paso Robles or other communities to obtain basic commodities and services.

Based on the 2010 Census, 88.0% of Shandon's labor force was employed, which is virtually the same as the countywide figure of 87.9%. See table 2.5. Table 2.5 also shows that Shandon had a higher percentage of its population participating in the labor force than the county as a whole. As shown in Table 2.6 a significant portion of the Shandon labor force works out of town. Therefore, it is important for the Shandon Community plan to provide the opportunity for people to live and work in Shandon. This is done by providing the land use areas, public services and infrastructure to accommodate economic growth.

Table 2.2 Labor Force Comparison

	Labor Force in 2000*				Labor Force in 2010**			
	Shandon		SLO County		Shandon		SLO County	
Employment Status	Number	Percent	Number	Percent	Number	Percent	Number	Percent
In Labor Force	434	63.0%	116,869	58.3%	552	62.0%	132,997	59.0%
Employed	408	94.0%	109,669	93.8%	486	88.0%	116,949	87.9%
Unemployed	14	6.0%	6,911	5.9%	66	12.0%	15,716	11.8%
Not in Labor Force	255	37.0%	83,704	41.7%	338	38.0%	92,344	41.0%
Population over 16	**689**	**100.0%**	**200,572**	**100.0%**	**890**	**100%**	**225,341**	**100%**

Source: *2000 Census of Population and Housing. **Based on 2010 American Community Survey (ACS) for SLO County with estimates for Shandon (2010 ACS information for Shandon's labor force not available).

Economic Development Issues
The economic development challenges facing Shandon residents include:

- High percentage of out-commuting by residents due to lack of jobs within the community
- Lack of shopping opportunities in Shandon
- Distance from the Highway 101 corridor
- Infrastructure costs
- Low population
- Lack of visitor traffic through the community and visitor-serving uses
- Lack of regional identity and agricultural tourism

Employment
Of those Shandon residents who are employed, about 25% work within Shandon and about 75% of the population works outside of Shandon; of those, approximately 87% work within San Luis Obispo County and 13% outside of San Luis Obispo County. Table 2.6 shows that Shandon has a significantly higher amount of employees working out of town than the countywide figure.

Table 2.3 Estimate of Workers by Place of Work

	Shandon		SLO County	
Job	**Number**	**Percent**	**Number**	**Percent**
Work in County of Residence	438	90.2%	103,796	88.8%
Work in Town	109	24.5%	41,969	40.4%
Work out of Town	319	65.7%	61,827	48.4%
Work out of County of Residence	48	9.8%	13,153	11.2%
Total	**486**	**100.0%**	**116,949**	**100.0%**

Source: Based on 2010 American Community Survey (ACS) for SLO County with estimates for Shandon (2010 ACS information for Shandon's workers by place of work not available).

Table 2.7 shows the distribution of jobs by industry. Most of the jobs in Shandon are in agriculture (37%). Manufacturing at about 9% is second, slightly higher than services and retail. This differs from jobs in the county as a whole, of which only 3.3% are in agriculture and 6.7% in manufacturing. The county as a whole provides a wide range of jobs in education, healthcare, retail, and entertainment/recreation. Economic growth within Shandon will depend on future buildout of the community, which is expected to result in housing, goods and services for local residents.

Table 2.4 Estimate of Workers by Industry				
	Shandon		SLO County	
Job	Number	Percent	Number	Percent
Ag, Forestry, Fishing, and Hunting	180	37.0%	3,874	3.3%
Mining	5	1.0%	885	0.8%
Construction	24	4.9%	9,382	8.0%
Manufacturing	43	8.8%	7,791	6.7%
Wholesale Trade	7	1.4%	2,074	1.8%
Retail Trade	35	7.3%	15,981	13.7%
Transportation and Warehousing	8	1.7%	2,461	2.1%
Utilities	2	0.5%	1,804	1.5%
Information	2	0.5%	3,772	3.2%
Finance, and Insurance	3	0.6%	2,044	1.7%
Real Estate, and Rental and Leasing	2	0.5%	2,328	2.0%
Other Professional Services	27	5.6%	13,269	11.3%
Educational Services	31	6.4%	10,582	9.0%
Health Services	34	6.9%	14,876	12.7%
Ent. And Recreation	35	7.1%	13,722	11.7%
Public Administration	26	5.4%	7,015	6.0%
Other Services	21	4.4%	5,089	4.4%
Total Industrial	486	**100.0%**	116,949	**100.0%**

Source: Based on 2010 American Community Survey (ACS) for SLO County with estimates for Shandon (2010 ACS information for Shandon's workers by industry not available).

Income
The estimated median household income in Shandon between 2005 and 2009 was about $47,400 (U.S. Census Bureau, 2005-2009 American Community Survey). The cost of living is higher in other parts of the county, and for the county as a whole, the median household income between 2005 and 2009 was about $55,500. During that time period, about 31.9% of the population was below the poverty line in Shandon, much higher than the 13.6% in San Luis Obispo County as a whole.

The housing market in the county has seen generally increasing values, despite a substantial decline in values after about 2006. According to the U.S. Census Bureau's 2005-2009 American Community Survey, the median home value in Shandon between 2005 and 2009 was $264,100, while the median home value in the county as a whole during that period was about $534,300. Comparing the median home values from the 2005-2009 American Community Survey to the 2000 Census, there was an increase in value of about 150 percent in Shandon (from $105,900 to $264,100) and about 130 percent in the county as a whole (from $230,000 to $534,300). In contrast, from 2000 to the period of 2005-2009, the median household income in Shandon increased by only about 35 percent (from $35,000 to about $47,400), while it increased by about 31 percent in the county as a whole (from 42,400 to about $55,500). The increase in home values in recent years has made it increasingly difficult for very-low to moderate-income families to afford buying a home.

Table 2.5 Household Income

	Shandon		SLO County	
Income	**Number**	**Percent**	**Number**	**Percent**
Less than $10,000	55	18.3%	6,568	6.4%
$10,000 to $14,999	0	0.0%	5,832	5.7%
$15,000 to $24,999	28	9.3%	10,669	10.4%
$25,000 to $34,999	26	8.6%	9,802	9.5%
$35,000 to $49,999	42	14.0%	13,666	13.3%
$50,000 to $74,999	114	37.9%	19,422	18.9%
$75,000 to $99,999	30	10.0%	12,629	12.3%
$100,000 to $149,999	3	1.0%	14,360	14.0%
$150,000 to $199,000	3	1.0%	5,232	5.1%
$200,000 or more	0	0.0%	4,483	4.4%
Median Household Income (dollars)	$47,404	X	$55,555	X
Total	**301**	**100.0%**	**102,663**	**100.0%**

Source: U.S. Census Bureau, 2005-2009 American Community Survey

Table 2.6 House Value - Owner Occupied				
	Shandon		SLO County	
Value	Number	Percent	Number	Percent
Less than $50,000	2	1.0%	1,629	2.6%
$50,000 to $99,999	4	2.1%	1,263	2.0%
$100,000 to $149,999	6	3.1%	1,069	1.7%
$150,000 to $199,999	51	26.7%	1,680	2.7%
$200,000 to $299,999	49	25.7%	4,146	6.6%
$300,000 to $499,999	59	30.9%	18,989	30.2%
$500,000 to $999,999	20	10.5%	27,832	44.3%
$1,000,000 or more	0	0.0%	6,186	9.9%
Median House Value (dollars)	$264,100	X	$534,300	X
Total	**191**	**100.0%**	**62,794**	**100.0%**

Source: U.S. Census Bureau, 2005-2009 American Community Survey

2.3 Population and Economy Policies

PEP-1 Promote Shandon's cultural advantages to attract prospective residents.

PEP-2 Support private efforts to enhance Shandon's downtown.

PEP-3 Support the maintenance and enhancement of agricultural production in the surrounding area.

PEP-4 Provide opportunities for appropriate commercial goods, services and employment in a timely manner to serve the growing population.

PEP-5 Encourage development that provides a variety of housing types for all income levels.

PEP-6 Foster a climate in which business can prosper, and actively promote economic development opportunities.

PEP-7 Maintain a positive, small-business climate, and strengthen the County's tax base by encouraging environmentally sensitive development with tax generation potential.

PEP-8 Encourage cooperative distribution and marketing of products, either locally produced or locally consumed, and services that meet a local need.

PEP-9 Promote agriculturally-related technology and opportunities for "back office" uses and specialty manufacturing.

PEP-10 Enhance aspects of the community that help economic development and draw residents to Shandon, including small-town ambiance; educational, cultural, environmental, and recreational resources; and affordable housing.

PEP-11 Encourage live-work arrangements.

2.4 Population and Economy Implementing Programs

PEIP-1 Support a coordinated approach to working with key industries for the purposes of targeted marketing (on a case-by-case basis) to retain or expand existing businesses, and attract new ones. Identify underrepresented industries that may be attracted to Shandon and actively recruit them. The following strategies should be considered in implementing this program:

1. Identify the types of existing and potential businesses that can succeed in Shandon.

   Some of the types of businesses that provide goods or services to the local population have already been identified in the market study prepared by Mundie and Associates, November 2005. Other businesses provide goods or services to a much wider geographic area (possibly even international), bringing income into the county. These types of businesses have been called "tradable goods and services" by economist Bill Watkins in the 2009 San Luis Obispo County Economic Forecast by the University of California, Santa Barbara Economic Forecast Project. Shandon is positioned well for a number of business types related to surrounding agricultural operations, the adjacent major east-west State Route 46, proposed solar power generation facilities in California Valley, and nearby major fiber-optic cables that connect to an international network.

   In light of these attributes, Shandon may be a good location for the following types of businesses (and possibly other underrepresented or unidentified industries):

   a. Local-serving retail and services (see market study prepared by Mundie and Associates, November 2005)
   b. Farm equipment and supplies
   c. Accounting and payroll services
   d. Agricultural processing, storage, and distribution
   e. Agricultural tourism
   f. Hotels or motels
   g. Water technology
   h. Transportation (trucking) and related businesses (along State Route 46)
   i. Small business incubator
   j. Medical and health care services
   k. Information technology and related businesses
   l. Energy technology and related businesses (especially those related to solar energy)
   m. Environmentally desirable businesses

2. Identify specific businesses consistent with the list above, both in Shandon and elsewhere, and interview them to solicit information about their needs in terms of sites, workforce, and other businesses they interact with.

This information can help identify potential adjustments to the Shandon Community Plan, determine whether these business types are appropriate for Shandon, and identify conditions under which they would consider locating or expanding in Shandon. These businesses are most likely located in the county or in the nearby portions of the Central Valley.

3. Ensure that adequate sites are designated (zoned) in Shandon for the above-referenced businesses.

   Certain businesses will need access and visibility from State Route 46, whereas other businesses may need a pedestrian-friendly downtown where people can walk from one business to another. Some businesses will need larger sites than others. Other characteristics of sites important to specific types of businesses may be identified during the interviews conducted in strategy 2 above.

4. Minimize the cost and time associated with permitting requirements for preferred types of businesses.

5. Further reduce start-up costs for preferred businesses by using public financing to fully improve one or more sites for job-generating businesses.

   Using a variety of public financing tools, the County should help construct basic infrastructure in advance of when private developers would request permits for the commercial buildings for which detailed planning was completed (under PEIP-2). This would provide a strong incentive for the preferred types of businesses to locate or expand in Shandon, since it would significantly reduce the time and cost associated with establishing a business.

6. Once the sites are entitled, market them to the targeted businesses.

   Methods to market the sites should include some direct meetings with the businesses interviewed previously, meetings with real estate associations, and direct mail "invitations" to business and trade associations by regular mail and email. The invitations should also be sent to consultants that specialize in identifying sites for specific business clients. The Economic Vitality Corporation (EVC) may be able to help route these invitations to businesses on the EVC distribution list.

PEIP-2 Assist local merchants and business organizations interested in forming a business improvement district (BID) to promote a definable identity for Shandon's commercial areas through coordinated signage and landscaping. Ultimately a BID could be responsible for on-going maintenance of landscaping, lighting, street furniture, and other amenities, as well as for other business district functions.

PEIP-3 Work with the school district, Cuesta College and Cal Poly to develop internship or mentoring programs for Shandon High School students that help prepare students for higher education and job training.

PEIP-4 Establish a program such as "Shandon Community Marketplace" to connect local business needs with local products and services. This program should encourage all businesses and residents in Shandon to make purchases in the community whenever possible in order to support the local economy.

Shandon businesses can "multiply" their profits by purchasing goods and services locally.

PEIP-5 Develop a weekly community farmer's market that showcases local produce.

PEIP-6 Promote cultural amenities and facilitate special events in the community that will draw visitors to the community.

Potential events include a Shandon community artisans and crafts fair, events that promote local agricultural products, sporting events such as a rodeo, and other seasonal events that will attract visitors to the community.

PEIP-7 Explore financing plans for businesses seeking to locate or expand in Shandon for whom payment of fees "upfront" may represent a major financial burden.

PEIP-8 Periodically survey the business community to determine their needs and suggestions for improving the local business environment.

PEIP-9 Explore the potential for adjustments to development standards that allow for more efficient use of sites that are already developed for employment uses.

PEIP-10 Promote, consistent with the Traffic and Circulation Chapter, public transportation opportunities in order to serve business areas and workers.

PEIP-11 Encourage non-motorized means of transportation to and within business areas.

PEIP-12 Encourage County investment in local infrastructure in order to attract private investment.

PEIP-13 Through the use of Community Development Block Grants or other funding sources, the County, working with the community, should proactively prepare and process one or more of the following plans or entitlements in order to attract businesses and expedite the permit process:

- Specific plan for the Central Business District or other business area(s)
- A downtown design plan (see LUNDIP-3 and Figure 3.1.4)
- A model for land use permit applications
- A Conditional Use Permit(s) for certain properties within commercial land use categories

The plan should contain a sufficient level of detail to lessen the extent of permit review for future land development proposals. This could include: preparing environmental review documents, site layouts, parking and circulation plans, drainage plans, architectural themes, and streetscape features. Design guidelines and standards must be consistent with the Shandon Community Plan.

These plans or entitlements should be prepared in phases for the community, since economic and environmental conditions can change within a few years after being approved. Once a site is so entitled by the County, construction permits could be obtained through a relatively quick ministerial building permit. Additionally, incentives such as deferred impact fees or adjustments to development codes may be appropriate.

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Chapter 3: Land Use and Neighborhood Design

Shandon residents envision a community that provides a balance of housing options, commercial and employment opportunities, and public amenities such as parks and trails. The Land Use and Neighborhood Design Chapter encourages a variety of development opportunities while responding to the need to preserve important agricultural and environmental resources and to maintain Shandon's small-town character. The Plan seeks to manage growth while increasing the quality of development through appropriate design of neighborhoods. The policies and implementing programs found in this chapter, together with the community planning standards found in Chapter 22.110 of the Land Use Ordinance, are intended to guide the design and implementation of new development within the community.

Crawford W. Clarke Memorial Park

Table 3.1 shows a summary of the different land use types within the Study Area for the Shandon Community Plan, the approximate acreage for each land use type and the relative distribution of land (percentage) for each land use type. (Section 3.1 describes the different land use areas). Where residential uses are allowed, the table identifies the average number of dwellings allowed in terms of dwelling units per acre, the number of units that existed in 2012, the number of potential new units that could be added based on the acreage of each land use type, and population estimates. Non-residential uses are characterized in terms of potential floor area expressed in square footage. The total figures are the maximum at plan buildout, including all uses in existence when the Community Plan was adopted. Figure 3.1, Land Use Plan, illustrates where the land use areas are located.

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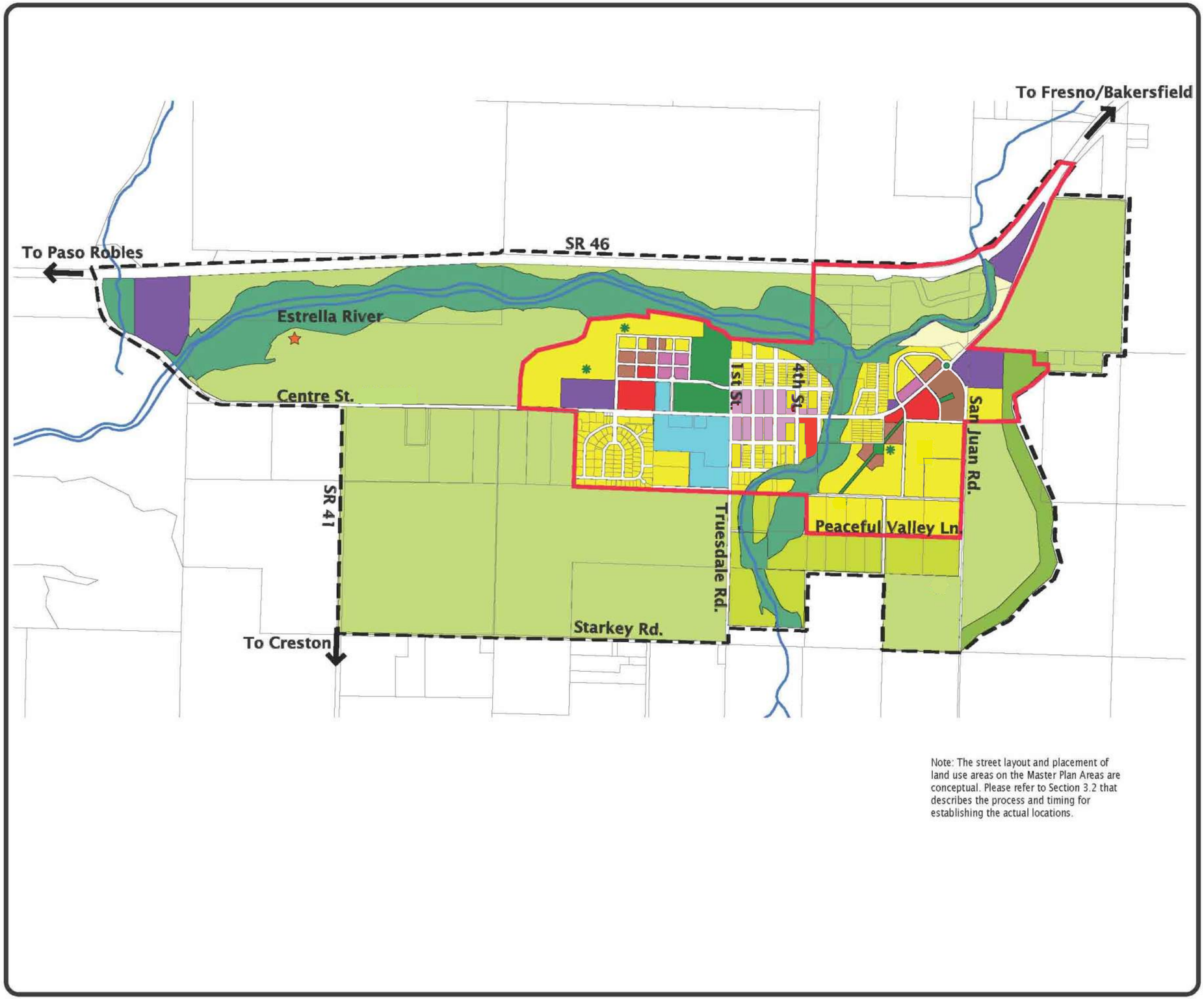

SHANDON COMMUNITY PLAN

LAND USES

AG	Agriculture
CR	Commercial Retail
CS	Commercial Service
C	Creek Area
H	Habitat Area
PF	Public Facility
REC	Recreation
MFR	Residential (13-20 du/ac)
RSF	Residential (2-12 du/ac)
RS	Residential (1-5 acre lots)
RR	Residential (5-20 acre lots)
MU	Mixed Use

MAP FEATURES

- Urban Reserve Line
- Study Area
- Creeks
- General Location of Potential Park Sites
- General Location of Potential Wastewater Treatment Facility

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Figure 3.1
Land Use Plan

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Table 3.1: Land Use Summary							
Land Use	**Acreage**	**Land Use Distri-bution**	**Units per Acre**	**Existing Units (2012)**	**Potential New Units**	**Total Population[1]**	**Maximum Non-Res. Sq. Feet[2]**
Residential Suburban (RS)	17	0.8%	<1	3	14	62	–
Residential Single Family (RSF)	239	11.4%	4.2	289	704	3634	–
Residential Multi-Family (RMF)	20	1.0%	13.9	2	276	1017	–
Commercial Retail (CR)	22	1.1%	–	3	–	11	59,300
Commercial Service (CS)	60	2.9%	–	1	–	4	177,000
Mixed Use (MU)	17	0.8%	7.1	53	67	439	80,700
Public Facilities (PF)	35	1.7%	–	–	–	–	–
Recreation (REC)	29	1.4%	–	–	–	–	–
Creek (C) & Habitat (H)	345	16.6%	–	–	–	–	–
Residential Rural (RR)	73	3.5%	–	*			–
Agriculture (AG)	1040	50%	–	8*	17	92	–
Streets, Trails, etc.	184	8.8%	–	–	–	–	–
TOTAL	**2,081**	**100%**		**359**	**1,078**	**5,259**	**317,000**

Notes:
1. Population estimates are based on 3.66 persons per household.
2. The maximum non-residential floor area is based on floor area averages for each land use area, build-out assumptions of less than 100% in portions of the expansion areas, and preliminary site analysis of the existing (2012) parcels along East Centre Street.

* Units outside of the URL are not included.

Table 3.2 shows a summary of potential residential growth under the Community Plan compared with the number of dwelling units in 2012.

Table 3.2: Potential Residential Development	
Residential Development	**Units (Buildout)**
Units within the adopted URL in 2012	359
Potential New Units Per Land Use Type	
Residential Suburban	14
Residential Single Family	704
Residential Multi-Family	276
Commercial Retail	0
Commercial Service	0
Mixed Use	67
Public Facilities	0
Recreation	0
Open Space	0
Agriculture	17
Subtotal (new units)	1,078
Total (includes units existing in 2012)	**1,437**

Assumptions:
1. Some existing units will be replaced by new units.
2. Residential Multi-Family will average 13.8 units per acre.
3. 2 units per lot for the small agricultural lots north of Cholame Creek.
4. Residential Single Family will average 4.3 units per gross acre.

3.1 Shandon Land Uses

The Land Use Map (Figure 3.1) depicts a variety and balanced arrangement of proposed land uses that will serve the needs of the community as it develops in the future. The map is not intended to show the exact boundaries of proposed land use categories (zones). Instead, it shows generalized land use patterns that provide the basis for the more specific land use categories that are shown on the Official Maps of the Land Use Element. Those land use categories determine where the requirements and standards of the San Luis Obispo County Land Use Ordinance apply.

3.1.1 Residential Land Uses

The Shandon Community Plan identifies three residential land uses to accommodate a variety of housing types: Residential Single Family (RSF), Residential Multi-Family (MFR or RMF), and Residential Suburban (RS). The following descriptions include a summary of each residential use. The residential areas establish minimum and maximum densities, expressed either as a minimum parcel size (in the case of Residential Suburban) or as the number of dwelling units per gross acre. A gross acre includes not only the area required for the actual residential use (dwelling unit and yard), but also the area required for local streets and utilities necessary to serve each residential neighborhood.

An important aim of this Community Plan is to encourage and provide opportunities for development of workforce housing. Such housing is defined by affordability and market demand, offering working families the opportunity for housing ownership. It is typically located close to job centers. In the RSF areas, workforce housing units should contain the same quality and character as traditional RSF units, but be designed at a smaller scale and footprint. Examples include bungalows, cottages, and duplexes. In MFR areas, workforce housing units should be seamlessly integrated into multi-family developments. This can be accomplished by designing units with smaller floor plans that are placed on smaller lots or by incorporating apartments, townhouses, row houses, and condominiums into development projects.

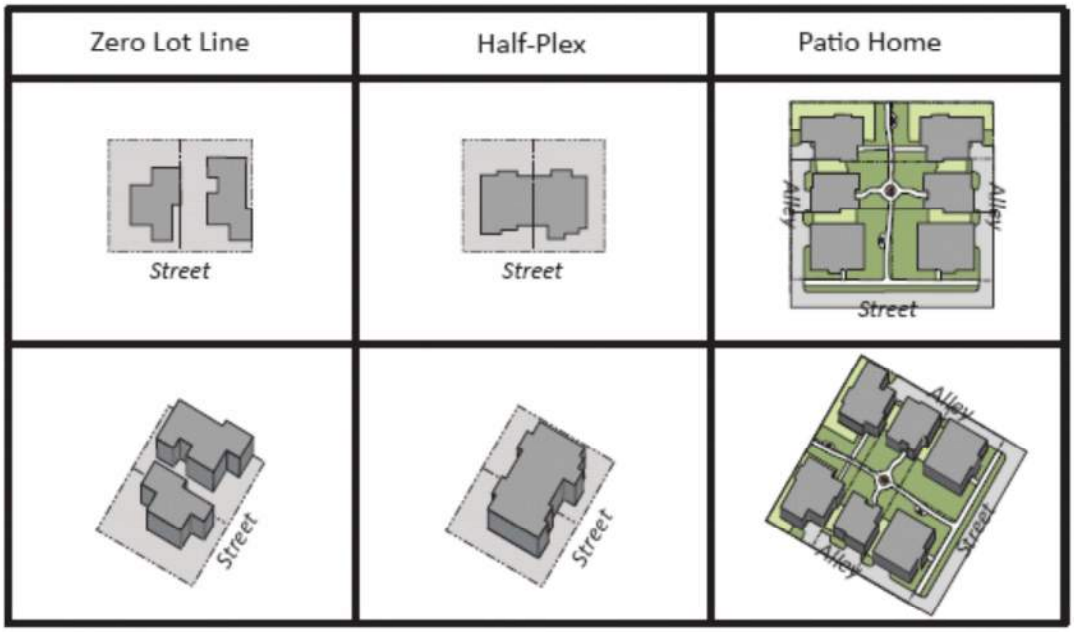
Residential Single Family (RSF)

The Residential Single Family (RSF) areas provide for single family residential neighborhoods that consist of a variety of housing configurations and densities. In 2012, the community was comprised of primarily single family dwellings located north and south of Centre Street. The RSF land use areas provide for a variety of residential units, including single family detached units, single family-zero lot line units, single family patio homes, duplexes, and half-plexes (please refer to Figure 3.1.1). Densities may vary from 2 to a 12 dwelling units per gross acre, with an average density of 4.2 units per acre throughout the land use area. Other allowable uses in RSF include parks, schools, religious facilities, daycare, and mobile home parks.

Multi-Family Residential (MFR)

The Multi-Family Residential (MFR) areas encourage a mix of attached and detached multi-family units for a variety of income levels. The housing types may include: detached zero lot line units, detached patio units (please refer to Figure 3.1.1), duplexes, townhouses, condominiums, “garden apartments” (low-rise apartment buildings with landscaped grounds that are often in a central open area), triplex homes on smaller lots, or multi-unit complexes. Multi-family housing is located within convenient walking distance to parks, schools and neighborhood and other commercial centers. The densities within these areas range from a minimum of 13 to a maximum of 20 dwelling units per gross acre. Other allowable uses in MFR include parks, schools, religious facilities, daycare, and mobile home parks.

Figure 3.1.1
Small Lot
Residential Development



Residential Suburban (RS)

In the proximity of Cholame Creek, residential development should be located away from the creek; subdivision application should include provisions for clustering rather than large lot divisions. Residential Suburban lots can accommodate secondary dwellings, the keeping of large animals, and hobby farming. Other allowable uses include parks, schools and religious facilities.

Table 3.3: Residential Density Standards

Residential Area	Minimum Density or Parcel Size	Maximum Density or Parcel Size
Residential Suburban	1 parcel /5 acres	1 parcel/acre
Residential Single Family	2 units/acre	12 units/acre
Residential Multi-Family	13 units/acre	20 units/acre
Mixed Use	---	10-12 units/ac.

Note: Densities are per gross acre. The range of densities helps provide a variety of housing types for a variety of income levels. The average density for single family areas is 4.2 units per gross acre; 13.8 units per gross acre for multi-family areas.

3.1.2 Commercial Land Uses

The Community Plan establishes three commercial land uses: Commercial Retail, Mixed Use and, Commercial Service. These commercial land uses are strategically located to serve the daily needs of Shandon residents by providing goods, services, entertainment, and employment opportunities. Commercial areas are located to complement each other and provide a variety of amenities to serve the community and surrounding area. See Figure 3.1.2 for the locations of commercial areas.

The downtown commercial area promotes the development of a complementary mix of residential, commercial, office, civic, and personal services, while enhancing the community's small town character and the feeling of being "downtown." Additional commercial land uses are proposed throughout the community that will complement the downtown area and offer everyday goods and services. The commercial centers provide opportunities for neighborhood retail shops, outdoor gathering areas, restaurants, services and/or business-professional uses to support the daily needs of residents.

The neighborhood commercial areas are intended to serve a neighborhood's daily retail needs. Uses typically found within these areas include markets, restaurants, cafés/delis, bakeries, ice cream parlors, pharmacies, laundromats, barbershops, hair salons, hardware stores, gas stations, banks, offices, and other similar uses generally serving nearby residential areas.

Located in the northwest corner of the Study Area at SR 46 and West Centre Street is a visitor-serving area that could accommodate a gas station, lodging, restaurant, and agriculturally-related retail sales.

Figure 3.1.2
Commercial Areas

In order to achieve a compact urban form, the Community Plan encourages floor area ratios consistent with those found in small downtowns rather than in suburban settings. Floor Area Ratio (FAR) is the ratio of building space to land area that is an indicator of the intensity of development on a parcel. Figure 3.1.3 illustrates three examples of FAR. Along Centre Street and in Mixed Use areas, FARs from 0.5 to .0.75 are appropriate. Uses requiring larger parking lots may have FAR's between 0.25 and 0.35. The visitor-serving parcel at West Centre Street and SR 46 is expected to be developed with an FAR of 0.20 or less. Higher FARs help maintain a compact urban form and reduce the pressure for future expansion into agricultural lands.

Figure 3.1.3

Floor Area to Land Ratios

FAR = Floor Area Ratio. The FAR indicates the maximum intensity of development on a parcel. The FAR is expressed as the ratio of building space to land area. For the purposes of this illustration, building space is the enclosed gross leasable space.

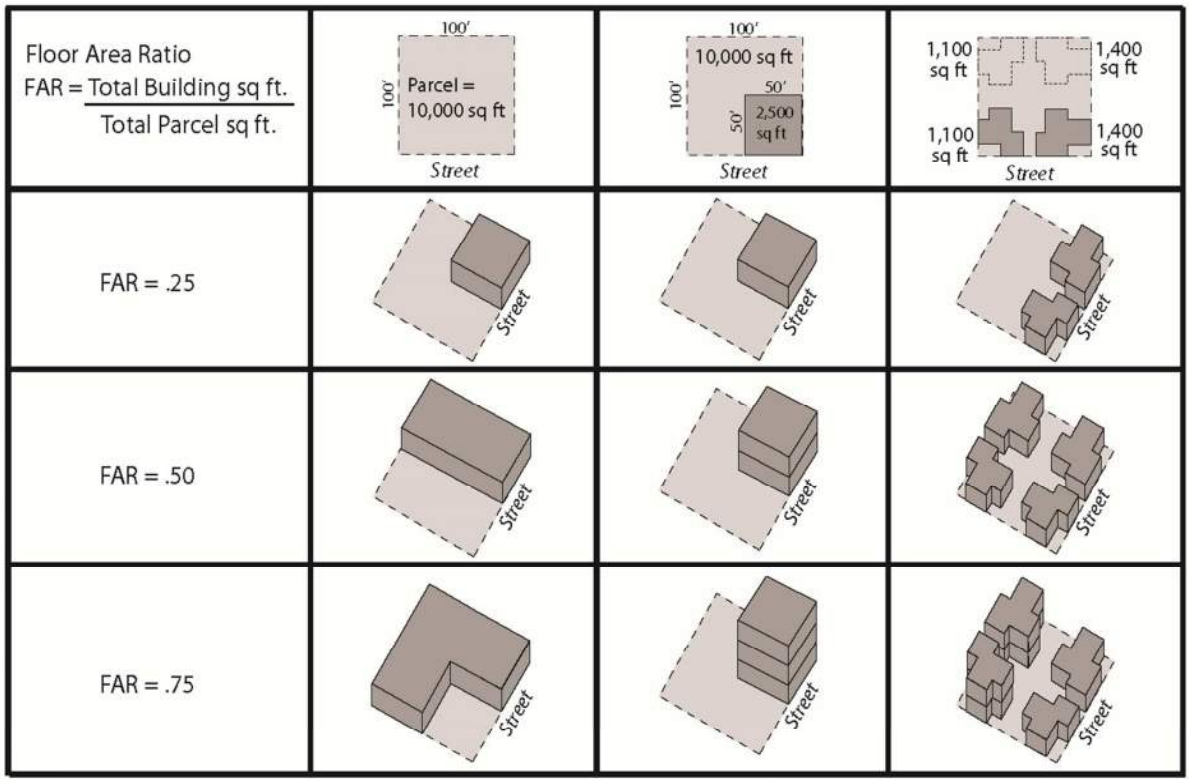


Figure 3.1.4
Downtown Illustrative Plan

LEGEND

- Existing Residential Buildings
- Existing Commercial Buildings
- Illustrative Commercial Buildings

SHANDON COMMUNITY PLAN

Centre Street Commercial Corridor
The following vision for the Centre Street Commercial Corridor is intended to encourage commercial revitalization and enhancements along Centre Street and to enable continuity throughout the downtown as it grows from Centre Street to other parts of the community. This vision is implemented by the commercial design standards in Chapter 22.110 of the Land Use Ordinance and the commercial design guidelines in Section 9.6.

Centre Street is centrally located within Shandon, and commercial development along this main street is planned to provide the opportunity to meet the daily shopping and employment needs of residents. As one enters the community from the west, the gateway to town will be enhanced by the tree-lined street adjacent to a center of employment in the commercial service area on the north side of the street. Between the employment center and the fire station is the location of retail businesses, service providers and civic uses (see the discussion of the western commercial node in Section 3.1.2). This area could include a market, drug store, new library, health clinic or similar uses that may require larger parking lots.

After passing the park, the historic downtown appears with pedestrian-friendly commercial and civic uses (this is the core downtown node in Section 3.1.2). This area should include common open space areas in the form of a plaza or green space that provides a place for people to relax, play, and interact. The area is well-connected to the surrounding residential neighborhoods via the historic street grid. This grid has ample rights-of-way and usable alleys that can be enhanced with landscaping, sidewalks, lighting, etc. to complement Shandon's existing inclination for walking. The Mixed Use designation applied to the residential lots adjacent to Centre Street will allow, as the town grows, small-scale businesses to be established as stand-alone uses or in combination with residential uses. This will make the Centre Street neighborhood more diverse, active and economically vital, and will provide a better connection to the expansion area north of the community park that, combined with the historic downtown, will make up Shandon's long term downtown (see Section 3.5.1 for details of this area). Figure 3.1.4 gives an illustrative example of this vision for a portion of Centre Street.

East of the historic downtown, after crossing San Juan Creek, is the eastern commercial node. The look and feel of this area fronting on Centre Street is similar to that of the core downtown. Tucked behind Centre Street is space for uses similar to those in the western commercial node. This node is within close proximity to multi-family and small-lot residential development. At the intersection of Centre Street and San Juan Road is an employment area that helps enhance the easterly gateway into town. Section 3.4 provides details for this area.

Commercial Retail (CR)

The Commercial Retail (CR) areas are intended to serve the community and surrounding area's daily retail needs. The Commercial Retail areas consist of three "nodes" along Centre Street with the objective of attracting varying yet compatible retail uses. The central node serves as Shandon's "downtown" and extends from 1st Street to 5th Street. As the community grows, the central node will expand when nearby residences in the Mixed Use areas transition to include commercial uses and when the expansion area north of the park develops. Residential units should remain an important component of the downtown area and can be integrated with commercial uses. A western commercial "node" is located west of the fire station and an eastern "node" is located between 8th Street and San Juan Rd. Uses such as markets that are dependent on larger parking lots should be located outside of the core downtown "node.

The three nodes are to be connected by tree-lined streets and sidewalks that make the downtown an appealing and pedestrian-friendly place. The commercial retail areas are to be balanced with amenities that may include a conveniently located common open space area in the form of a plaza or green space to provide a place for people to relax, play, and interact. Attractive lighting and landscaping and places to sit should further enhance the hometown aesthetic. Small-scale buildings are to be oriented toward the street edge and include features such as awnings to shade the street, large transparent windows, and easily identifiable entryways. The architectural vernacular should be compatible with the community's historic small town identity, nearby agrarian form, climate and natural setting.

Mixed Use (MU)

The areas identified as Mixed Use (MU) in this Plan will be included in the Commercial Retail (CR) land use category on the Official Maps. However, in this Plan, the MU areas identify where mixed use development is encouraged. The intent of the MU areas is to promote the development of a complementary and creative mix of residential, commercial, office, civic, and government services along Centre Street and other areas as shown on Figure 3-1. These areas are intended to support a full range of neighborhood retail and service uses, including small markets, restaurants, and specialty shops. Medical, professional and other general office or government services are also envisioned. The MU areas within existing neighborhoods will allow property owners to establish a commercial use, develop a combination of commercial and residential uses, add a commercial use to an existing residential use, or redevelop their properties in a similar manner. This will contribute to a diversity of uses and activities, encourage economic opportunities, and add character to the community's central core.

Commercial Service (CS)

The Commercial Service (CS) areas are intended for business centers that will provide for head-of-household jobs in clean industries. Examples are business and commerce parks, warehouse and distribution centers, light manufacturing and fabrication (limited to indoor activity) and other similar uses located in a low intensity, landscaped setting with quality architectural design. On-site retail uses serving employee needs may also be permitted. The Plan contains two gateway commercial sites which are located at the intersections of Highway 46 with West Centre Street and East Centre Street. These sites could accommodate lodging, restaurants, service stations, a visitor's center, and agriculturally-related retail sales.

3.1.3 Recreation (REC)

The Recreation (REC) areas provide for multiple recreational opportunities. Existing recreational facilities include a community park (Crawford W. Clarke Memorial Park) with a swimming pool, community meeting hall, tennis courts, and day use facilities. As Shandon develops in the future, it will need additional community park acreage. The residents will also need to be served by neighborhood parks that are strategically located throughout town to serve residential neighborhoods within convenient walking or biking distances. Smaller parks within residential areas, such as "pocket parks," may also be provided. The Land Use Plan identifies potential general locations for various park sites.

3.1.4 Public (PF)

The Public Facilities (PF) areas are for public/government-owned or operated facilities. Public Facilities uses typically include schools, libraries, community centers, fire and police stations, and other similar public uses.

3.1.5 Shandon Vicinity Creek Area (C) and Habitat Area (H)

The areas identified as Creek Area (C) and Habitat Area (H) in this Plan are included in the SRA combining designation on the Official Maps, but are not included in the Open Space land use category. The Creek Areas correspond to the 100-year floodplains of Cholame Creek, San Juan Creek and the Estrella River, and the Habitat Area identifies a buffer along the easterly edge of the URL. These areas, consisting of riparian vegetation and grasslands, are important biological corridors. They provide a buffer between urban development and agricultural uses, and may ultimately remain undeveloped or contain passive recreational uses, with more intensive uses outside of the (C) and (H) areas.

3.1.6 Agriculture (AG)

The Agriculture (AG) areas include several small parcels less than 20 acres in size north of the Estrella River; each is allowed to have two dwelling units. Other agricultural lands within the Study Area are under Land Conservation Act (Williamson Act) contract. This includes portions of the Peck Ranch and Halpin Master Plan Areas that are planned for conversion to non-agricultural uses. (Please see Table 3.4.)

The Williamson Act is a California law that provides incentives to preserve agriculture and open space and discourage its conversion to urban uses. Landowners enter in a contract with San Luis Obispo County to restrict their lands to agriculture and open space uses in exchange for a lower tax assessments on their parcels. This tax assessment is consistent with the actual use of the land, rather than the potential market value. Landowners enter into these contracts for a period of 10 years, with an automatic annual renewal, unless San Luis Obispo County or the landowner files a "notice of non-renewal." Williamson Act parcels within the Study Area are as follows:

Table 3.4: Williamson Act Parcel Data			
	APNs*	**Application**	**Contract Expiration Date**
Peck Ranch	017-163-074 019-171-027	AGP2004-00007	Feb. 7, 2015
Halpin	017-163-076 017-163-077**	A030009N	Jan. 1, 2013
Jackson***	017-163-090	--	--

* Assessor Parcel Numbers (APNs) are subject to change. The 2011 APN map is located in Appendix F.
** Not within the Urban Reserve Line.
*** Property is remaining in Williamson Act Contract; therefore is not included within the URL.

As land is developed, conflicts between agricultural and urban uses allowed by the Shandon Community Plan may occur. Such conflicts include inconveniences or discomforts to residents from nearby agricultural operations due to noise, dust, sprays, and smells, and potential damage to agricultural operations caused by household pets or trespassing. The County has a "Right-to-Farm" Ordinance that requires disclosure to buyers that they may be subject to such inconveniences or discomforts. Establishing adequate separations or "buffers" between sensitive uses and agricultural land is another method the County uses to reduce potential conflicts. Agricultural buffers are placed on the non-agriculture site. The buffer distances vary depending on the intensity of the agricultural use. In some cases, the buffer may be as small as 50 to 100 feet and in other cases the buffer may be as large as 600 feet. The appropriate buffer size is determined with the land use permit or subdivision application on the non-agriculture parcel.

3.2 Master Plan/Development Plan Expansion Areas

The URL boundaries shown on the Land Use Plan Map (Figure 3.1) designate areas where the community is expected to grow and public services are planned to be extended. Within the URL are Master Plan areas for future community expansion. Those areas are intended to provide a range of complementary land uses necessary to support livable neighborhoods that are integrated into the existing community.

The Community Plan provides standards for preparation of Master Plans for the following plan areas:

- Fallingstar
- Halpin
- Peck Ranch

3.2.1 Master Plan Requirements

Each Master Plan shall address the following:

1. The distribution, location, and extent of land uses within the area covered by the Master Plan.

2. The proposed distribution, location, extent and intensity of major components of public and private transportation, wastewater, water, drainage, solid waste disposal, energy, and other essential facilities proposed to be located within the area covered by the Master Plan.

3. Standards and criteria by which development will proceed, and standards for the conservation, development, and utilization of natural resources, where applicable.

4. A program of implementation measures, including regulations, programs, infrastructure improvements, necessary rezoning and land use entitlements, and financing measures.

5. Provision of commercial development for goods, services and employment in time to serve the growing population, consistent with market demand.

The overall land use pattern and total amount of development within a proposed Master Plan area must be consistent with the land uses of the Shandon Community Plan. The specific distribution of land uses on portions of the Master Plan area may differ somewhat from that shown in the Community Plan, as long as the total acreage, range of housing densities, and public amenities identified in the Community Plan are maintained.

In addition to the requirements described above, all Master Plans shall be planned and designed to carry out the following objectives and principles.

3.2.2 Master Plan Objectives

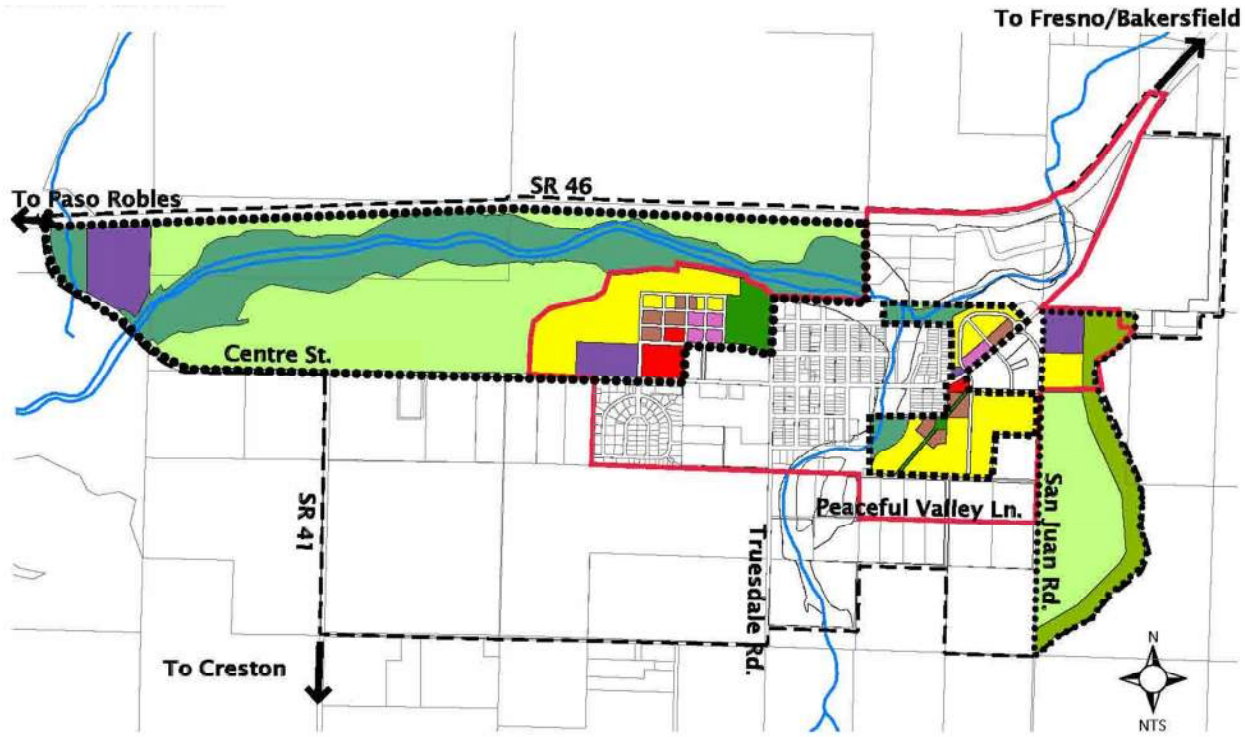
The objectives for Master Plans proposed within the community are to:

1. Implement the San Luis Obispo County General Plan and the Shandon Community Plan;

2. Establish a framework for the orderly development of expansion areas that prioritizes conversion of agricultural lands consistent with Agriculture Element Policy 24, ensuring that development is well-connected and complementary to the existing downtown, community core, and residential neighborhoods;

3. Coordinate development and ensure the construction of key infrastructure and public facilities; and

4. Develop site-specific standards and programs to protect substantial physical features, agricultural lands, and natural habitats such as rivers, creeks, hills, and corridors between those habitat areas.



LAND USES

AG	Agriculture
CR	Commercial Retail
CS	Commercial Service
C	Creek Area
REC	Recreation
MU	Mixed Use
H	Habitat Area
MFR	Residential (13-20 du/ac)
RSF	Residential (2-12 du/ac)

MAP FEATURES

- Urban Reserve Line
- Study Area
- Creeks
- Peck Ranch Master Plan Area
- Fallingstar Master Plan Area
- Halpin Master Plan Area

Note: The street layout and placement of land use areas on the Master Plan Areas are conceptual. Please refer to Section 3.2 that describes the process and timing for establishing the actual locations.

SHANDON COMMUNITY PLAN

Figure 3.2
Master Plan Areas

3.2.3 Master Plan Sustainability Principles

The following principles are to be incorporated into the Master Plan areas in order to achieve sustainable development.

1. **Walkability** – Provide strong pedestrian connectivity and ensure that new residences are no more than approximately one-half mile from services, future transit and other daily needs.

2. **Public Transit** – Consider future public transit needs in the layout of the Master Plan areas. Future transit should be well linked and provide extensive coverage to as many facilities, amenities and residences as possible within a one-half mile walking distance. The transit systems should be part of the regional transit network.

3. **Water Conservation** – Use techniques and technologies, including, but not limited to, ultra-low-flow fixtures, native and/or appropriate drought-tolerant landscaping, high-efficiency irrigation systems, and natural drainage systems.

4. **Parks and Open Space** – Provide well-linked passive and active parks to enhance the Master Plan Areas' recreational amenities and provide opportunities for exercise and recreation.

5. **Materials and Methods of Construction** – Use materials that are appropriate to the local area. Materials should, preferably and as practicably possible, be obtained locally and have at least some recycled components. Sustainable best management practices (BMPs) such as pervious pavements should be incorporated in site designs.

6. **Green Technology** - Require "green" technology, including the use of solar components and "Low Impact Development" (LID) design techniques. Examples of LID techniques include bio-swales for water capture and filtration, and retention areas that may be also used as park sites.

7. **Balanced Growth** – Provide opportunities for and facilitate commercial development for goods, services and employment in time to serve the growing population, consistent with market demand.

8. **Agricultural Resource Protection** – Provide appropriate buffers and transitions between urban and agricultural uses.

3.3 Master Plan Design Principles

3.3.1 Community Design Principles

Compact Development

1. Make use of compact development to minimize economic, social and environmental costs and use resources and infrastructure efficiently.

Center Focus

2. The Commercial nodes on Fallingstar and Peck Ranch should accommodate an appropriately-scaled and economically healthy core or center with a range of commercial, residential, civic, cultural, and recreational uses.

Neighborhood Identity.

3. Design neighborhoods with unique identities and with defined common and open spaces.

Connectivity

4. Provide logical, attractive and safe pedestrian and bicycle circulation within new development areas, and connect such areas with existing residential and commercial areas.
5. Provide for a pedestrian connection over San Juan Creek.
6. Design the street system to provide an overall grid-type of layout that provides multiple routes of travel and reduces congestion.
7. Ensure that the community is well-connected or linked by providing a mix of attractive and safe pedestrian, bicycle and vehicular routes within new development areas and by connecting those areas to existing residential and commercial areas.

Mixed Use and Diversity

8. Provide a mix of shops, offices, apartments, and homes in appropriate locations.

Utilities and Streets

9. Utilize design measures to encourage automobiles to travel at slower speeds, particularly through residential areas.
10. As allowed by State and Federal law, place all utilities underground.
11. Design street lighting to provide adequate illumination for public safety, but limit light pollution.
12. Plan for all homes to connect to the sewer system.
13. Construct paved streets. Install gutters (may include bio-swales where appropriate) and sidewalks for commercial areas.
14. Design drainage systems to maximize percolation. Use Low Impact Development (LID) techniques such as roadside drainage/infiltration in areas with lower-density development.
15. Design a circulation system to help deter congestion around school sites and commercial areas during critical times of the day and evening hours.

Environment

16. Design development to take into account and follow the existing topography in order to reduce the impact of grading and the need for excessive infrastructure.
17. Work with state and federal agencies to accommodate wildlife needs, such as preserves or corridors, based on biological/scientific evaluation.
18. Design and orient development in a manner that minimizes land use incompatibilities with agricultural resources and operations.

3.3.2 Housing Design Principles

Work Force and Affordable Housing

1. Integrate work force and affordable housing into proposed neighborhoods and development. Provide opportunities for ownership and rental housing in a combination of affordability levels: very low income, lower income, moderate income, and work force housing.

Housing Variety

2. Provide a variety of housing types that includes single family residential units on lots of varying sizes, as well as high density multi-family units, such as apartments, duplexes, triplexes, four-plexes, townhouses, and condominiums.
3. Include a variety of housing types in each development phase where possible.

Housing Densities

4. Plan for higher housing densities near commercial areas, public services and transit, in keeping with the County's Strategic Growth Principles. Allow for densities to generally decrease as the distance from such areas increases.

3.3.3 Public Utilities, Services and Circulation

Development will involve significant improvements in public services, primarily water, wastewater, and circulation. Shandon's water system was not originally designed to accommodate major community expansion. Water supply and storage improvements are needed for successful development. Additional water storage facilities are needed to provide for adequate emergency and fire protection storage for the existing community, as well as for the demands of new development. The town's water storage reservoir is located on the Halpin property outside of the URL, and it is anticipated that a new water storage reservoir will be needed in that vicinity.

A wastewater treatment facility will be necessary to accommodate the density of residential and commercial development that is envisioned. Project development would include the construction of a wastewater collection, treatment and disposal system to serve the development. The system will need to be designed as a public facility, with provisions for future expansion to provide service to the existing town.

Circulation system improvements will also be needed to accommodate the additional traffic and pedestrian volumes generated by development in the Master Plan Areas. Improvements will be required, for example, to Centre Street, San Juan Road, and the SR 46 intersections with East and West Centre Streets. Internal project streets will need to be developed to County standards, including paved streets. Pedestrian access over San Juan Creek will need to be improved.

Project impacts to other public services such as police (Sheriff) and fire protection will be evaluated through the Master Plans and their environmental determinations.

3.4 Fallingstar and Halpin Master Plan Areas

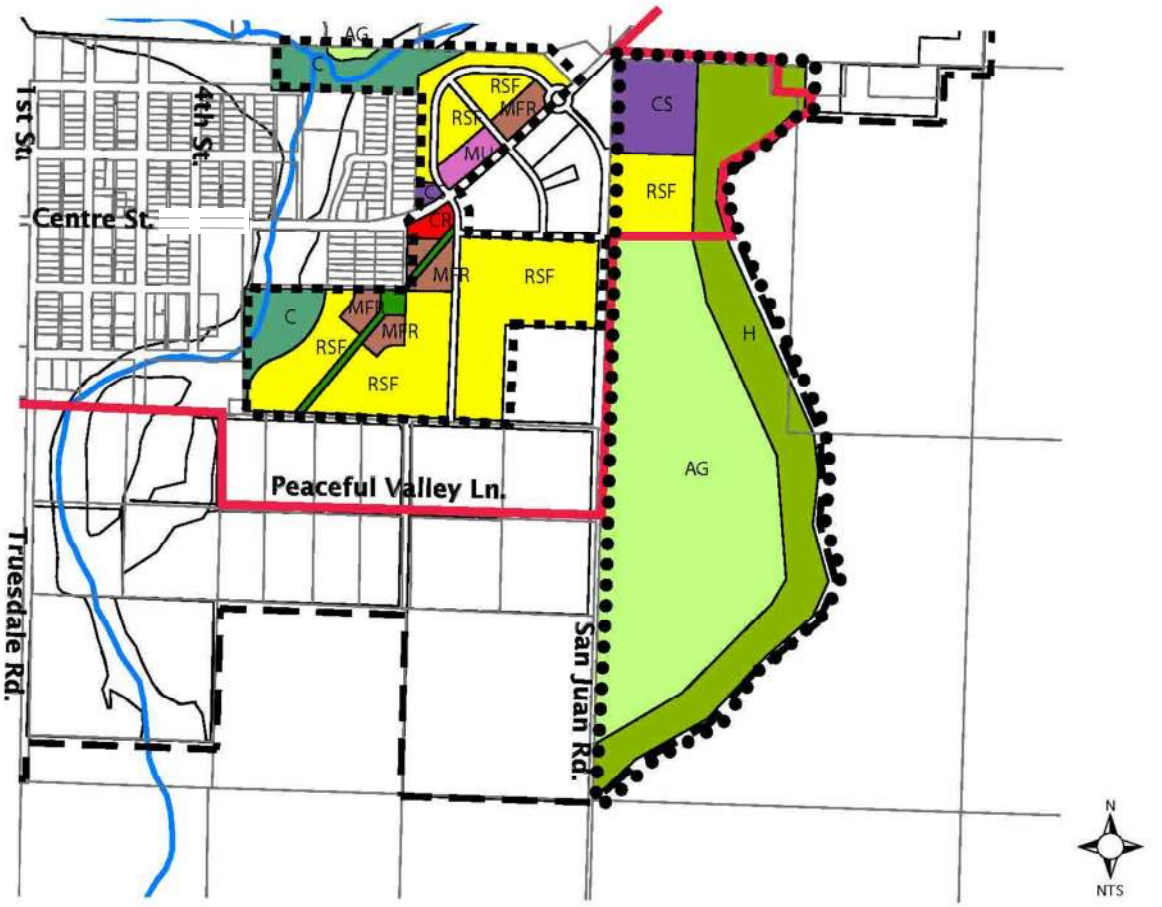
The Fallingstar Master Plan Area consists of approximately 86 acres and is located in the southeastern part of the community on gently sloping land. This area is to be developed with residential single family, multi-family, commercial, and related uses (See Figure 3.3).

The Fallingstar Plan Area is envisioned as a master-planned community with a strong sense of place. The land use concept for this area should combine contemporary planning and design concepts with historical relevance and respect for the natural systems on the site. It should also complement the character of adjacent land uses. The land use design should arrange residential neighborhoods in close proximity to open space, natural habitat, and parks.

Primary access to the Master Plan Area is from Centre Street and San Juan Road. A hierarchical roadway system distributes traffic through the Master Plan Areas and internally connects the land uses. Alternative transportation opportunities will be promoted through the use of walking and bicycle systems.

The Halpin Master Plan Area lies east of Fallingstar and includes approximately 29 acres within the URL. Land uses within this area are to include open space, commercial services, and residential. The design for the eastern edge of the Plan Area should maintain a historic sense of openness by visually linking residents to open space, agriculture and the hillsides that form a magnificent backdrop to the community.

This property is subject to a Land Conservation Act contract until January 2013, when a Notice of Non-Renewal expires. Until that time, no residential or commercial development is permitted. The area has varied topography, with extensive moderately-sloping areas and numerous ridges and canyons where slopes range from 5% to near vertical. Significant site features include the state water pipeline, which generally parallels San Juan Creek Road, the County Service Area No. 16 Water Storage Facility, and several existing residential structures.



LAND USES

AG	Agriculture
CR	Commercial Retail
CS	Commercial Service
C	Creek Area
H	Habitat Area
REC	Recreation
MU	Mixed Use
MFR	Residential (13-20 du/ac)
RSF	Residential (2-12 du/ac)

MAP FEATURES

- Urban Reserve Line
- Study Area
- Creeks
- Fallingstar Master Plan Area
- Halpin Master Plan Area

Note: The street layout and placement of land use areas on the Master Plan Areas are conceptual. Please refer to Section 3.2 that describes the process and timing for establishing the actual locations.

SHANDON COMMUNITY PLAN

Figure 3.3
Fallingstar and Halpin Master Plan Areas

3.4.1 Fallingstar Master Plan Land Uses

The Fallingstar Master Plan Area includes approximately two acres of Commercial Retail, two acres of Mixed Use (commercial and office), 52 acres of Residential Single Family, 2.5 acres of Recreation, and 14.2 acres of Creek Area. The Fallingstar development would support a maximum of 395 dwelling units and approximately 1,450 people.

Table 3.5 shows a summary of the different land use types within the Fallingstar Master Plan Area, the approximate acreage for each land use type and the relative distribution of land (percentage) for each land use type (Section 3.1 describes the different land use areas). Where residential uses are allowed, the table identifies the average number of dwellings in terms of dwelling units per acre, the number of units that existed in 2011, potential new units that could be added based on the acreage of each land use type, and population estimates. Non-residential uses are characterized in terms of potential floor area expressed in square feet. The total figures are the maximum at plan buildout. Figure 3.3 illustrates where the land use areas are located.

Commercial land uses within Fallingstar consist of Commercial Service, Commercial Retail, and Mixed Use. This area serves as the eastern gateway into the community. The Commercial Retail and Mixed Use areas should provide complementary uses to the downtown core that could include restaurants, lodging, a visitor's center, or retail sales. The Commercial Service site on the north side of Centre Street could accommodate a service station or other service use that may not be appropriate downtown. The Mixed Use area encourages establishment of residential uses in combination with commercial, which should contribute to the diversity of uses and activities, encourage economic opportunities, and add character to the community's eastern gateway.

Residential areas within Fallingstar include both single family and multi-family development. Residential Single Family areas should be developed at a density similar to that of neighboring residential units, with an opportunity to increase density up to 12 units per acre as appropriate. Multi-family residential areas allow up to 20 units per acre and are intended to provide opportunities for a variety of housing types and choices, including rental and affordable housing. Concentrating residential density in this area will increase the number of people within walking distance of adjacent commercial uses.

Complementary to the principles found in Sections 3.2.3 and 3.3, the following design principles should be followed in the Fallingstar Master Plan:

- **Compact Development**. Design compact development to minimize economic, social and environmental costs and use resources and infrastructure efficiently.

- **Center Focus.** In the Commercial node, accommodate an appropriately-scaled and economically healthy village center with a range of commercial, residential, civic, cultural and recreational uses.

- **Neighborhood Identity.** Establish neighborhood identities using defined common and open spaces.

- **Connectivity.** Provide interconnected, attractive and safe pedestrian and bicycle circulation within new development areas and between those

areas and surrounding areas of town. Provide for a pedestrian connection over the San Juan Creek. Design the street systems to provide an overall grid type of layout that offers multiple routes of travel and reduces congestion.

- **Walkability.** Establish residential neighborhoods within a 10-minute walk to most services and employment areas. Design streets to be pedestrian-friendly with ample trees. Locate commercial buildings close to the street, placing parking behind buildings.

- **Mixed Use and Diversity**. In appropriate areas, provide a mix of shops, offices, apartments and homes in single blocks and neighborhoods.

- **Traffic Calming.** Utilize design measures to encourage automobiles to travel at slower speeds, particularly through residential areas.

- **Utilities and Streets.** Place utilities underground and design street lighting to provide adequate illumination for public safety while minimizing light pollution. Connect all land uses to a community sewer system. Pave streets and install sidewalks. Install gutters in commercial areas, multi-family areas and higher-density residential areas. In less dense areas, large landscaped areas, and areas adjacent to open space, utilize Low Impact Development (LID) practices such as bio-swales for handling roadside drainage.

3.5: Fallingstar (San Juan Village)							
Land Use	**Acres** [1]	**Land Use Distribution**	**Units /Acre** [2]	**Existing Units** [3]	**Potential New Units**	**Population**	**Non Res. Square Feet** [6]
Residential Single Family (RSF)	52.2	60.6%	5.1	3	263	974	
Residential Multi-Family (RMF)	7.6	8.8%	14.0	1	106	392	
Commercial Retail (CR)	1.4	1.6%	–	1	–	4	9,000
Commercial Service (CS)	0.8	0.9%	–	–	–	–	5,000
Mixed Use (MU)	2.2	2.6%	9.5	–	21	77	16,000
Recreation (Rec)	2.5	2.9%	–	–	–	–	
Creek (C)	14.2	16.5%	–	–	–	–	
Collector Streets [5]	5.3	6.1%	–	–	–	–	
Sub-Total	86.2	100.0%	–	5	390	1,447[4]	30,000
Total	**86.2**	–	–	–	**395**	**1,446**	**30,000**

Notes:

1. Represents gross acreage, including internal streets and alleys.
2. Represents the gross density for each residential land use area in the San Juan Village project. Communitywide averages are identified in Table 3.1.
3. Existing units may be replaced by new units. The existing unit in the Commercial Retail land use area may be replaced in a residential single family area.
4. Population estimates are based on 3.66 persons per household with variation due to rounding.
5. Includes the rights-of-way for Centre Street and San Juan Road. There are approximately 8 additional acres of internal streets, paths and alleys within the San Juan Village project.
6. Non-residential floor area is based on floor area averages for each land use area, build-out assumptions of less than 100% in the Commercial Retail, Mixed Use and Commercial Service areas.

3.4.2 Halpin Master Plan Land Uses

The Halpin Master Plan Area is intended to create a lower density neighborhood that provides a transition from urban to rural and agricultural uses located to the south and east of the community. The Master Plan Area includes approximately eight acres of larger-lot Residential Single Family (RSF) land that may yield a maximum of 16 units and a population of 59. A nine-acre Commercial Service (CS) area is provided at the northern border of the Halpin Master Plan Area that has the potential to provide approximately 53,600 square feet of gross floor area. Habitat Areas and Agriculture border Halpin to the north, east and south.

Table 3.6 shows a summary of the different land use types within the Halpin Master Plan Area, the approximate acreage for each land use type and the relative distribution of land (percentage) for each land use type. (Section 3.1 provides a description of each land use type). Where residential uses are allowed, the table identifies the average number of dwellings in terms of dwelling units per acre, the number of units that existed in 2012, potential new units that could be added

based on the acreage of each land use type, and population estimates. Non-residential uses are characterized in terms of potential floor area in square feet. The total figures are the maximum at plan buildout. Figure 3.3 illustrates where the land use areas are located.

The Commercial Service site located on San Juan Road adjacent to Centre Street is intended to attract a business park or light industrial-type use that provides local employment opportunities. The use should be compatible with the Residential Single Family (RSF) uses to the south. It is important for this site to develop in a timely manner so that commercial development keeps pace with residential development and helps implement the economic policies found in Chapter 2.

A small Residential Single Family area helps to create a transition from urban to habitat and agricultural uses. This area is required to have larger lots at a lower density. Homes should be located within walking distance to the Centre Street commercial uses and should incorporate pedestrian-friendly design elements such as separated sidewalks, shady street trees, and safe crossing opportunities.

3.6: Halpin							
Land Use	**Acres** [1]	**Land Use Distribution**	**Units/ Acre**	**Existing Units** [2]	**Potential New Units**	**Population** [3]	**Non Res. Square Feet** [4]
Residential Single Family (RSF)	8	4.3%	2.0	2	13	55	
Commercial Service (CS)	9	4.9%	–	1	–	4	53,600
Habitat (H)	30	16.2%	–	0	–	0	
Agriculture (AG)	123	66.4%	–	–	–	–	
Streets, Trails, etc.	15	8.0%	–	–	–	–	
Sub-Total	185	100.0%	–	3	13	59	53,600
Total	**185**	–	–	–	**16**	**59**	**53,600**

Notes:

1. Represents gross acreage, including internal streets and alleys.
2. Existing units may be replaced by new units. The existing dwelling unit in the Commercial Service land use area may be replaced in a residential single family area.
3. Population estimates are based on 3.66 persons per household.
4. Non-residential floor area is based on floor area averages for each land use area, build-out assumptions of less than 100% in the Commercial Retail, Mixed Use and Commercial Service areas.

3.5 Peck Ranch Master Plan Area

There are about 633 acres of the Peck Ranch within the Shandon Study Area, 98 of which are located within the Shandon URL and make up the Peck Ranch Master Plan Area. The larger Peck Ranch extends westward well beyond the Shandon Study Area (see Figure 3.4 for the locations of these areas).

The Peck Ranch presents an opportunity to embrace proximity to Crawford W. Clarke Memorial Park by introducing residential and commercial uses to the north and west, creating a "village" atmosphere that is a logical expansion of the downtown core. This expansion area is accessible from Centre Street along First Street or via new connecting streets west of the park. It is within a walkable distance from Centre Street via pedestrian and bicycle access through the park, allowing a pleasant separation from vehicular traffic.

The Peck Ranch property is intended to provide opportunities for local employment and associated residential development in Shandon. In addition, development of this area could include:

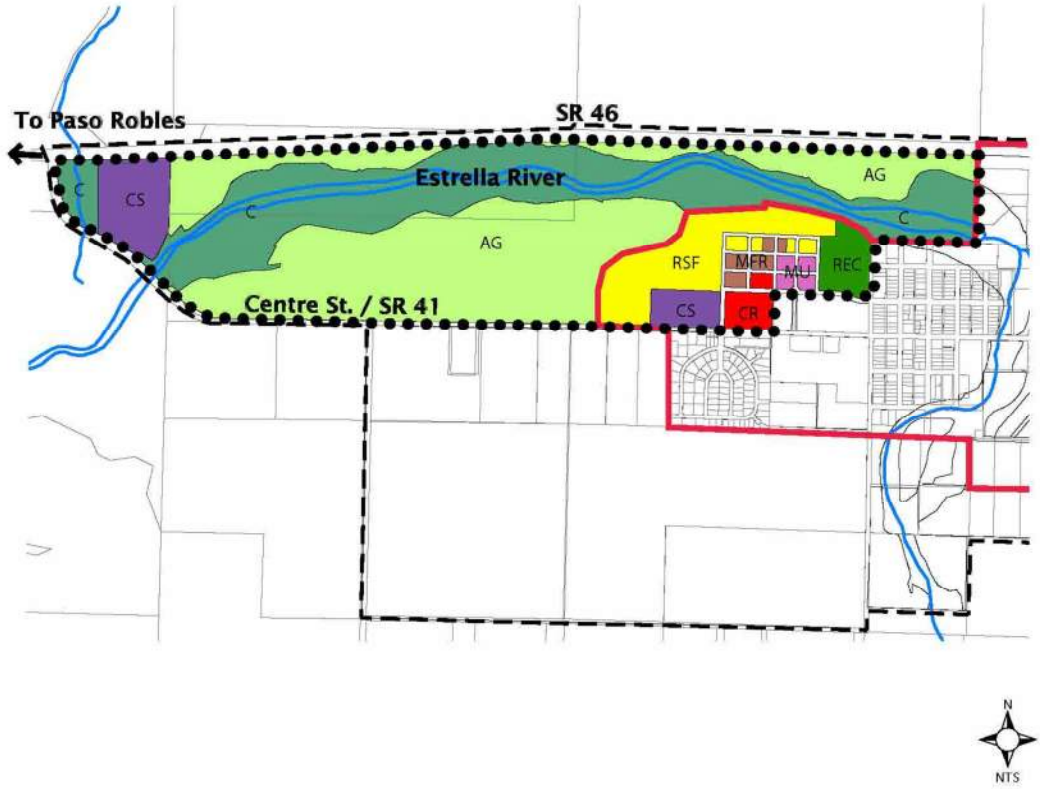
- Enhancement or expansion of the community park.
- A location for a health clinic and new civic uses, such as a new library site
- Extension of the wastewater collection system through town
- An attractive gateway along Centre Street
- Visitor-serving uses at West Centre Street and SR 46 (outside of the URL).

Most of the Peck Ranch Master Plan Area is subject to Land Conservation Act contracts. Notices of non-renewal on those contracts will expire in February 2015. Until that time, only that development permitted under the Agriculture land use category and in the specific contracts is allowable.

Development within this area will require preparation of a Master Plan consistent with the land uses shown in Figure 3.4, including the Commercial Retail and Commercial Service uses along Centre Street.

3.5.1 Peck Ranch Master Plan Land Uses

The land uses in the 98-acre Peck Ranch Master Plan Area consist of the following: 10 acres of Commercial Retail, six acres of Residential Multi-Family, 54 acres of Residential Single Family, 12 acres of Commercial Service, four acres of Mixed Use, and 12 acres of Recreation. Buildout of this Master Plan Area could support approximately 422 dwelling units with 1,545 people, and a maximum of 140,300 square feet of retail and commercial service uses.



LAND USES

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MAP FEATURES

- Urban Reserve Line
- Study Area
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Note: The street layout and placement of land use areas on the Master Plan Areas are conceptual. Please refer to Section 3.2 that describes the process and timing for establishing the actual locations.

SHANDON COMMUNITY PLAN

Figure 3.4
Peck Ranch Master Plan Area

Table 3.7 shows a summary of the different land use types within the Peck Ranch Master Plan Area, the approximate acreage for each land use type and the relative distribution of land (percentage) for each land use type. (Section 3.1 provides a description of each land use type). Where residential uses are allowed, the table identifies the average number of dwellings in terms of dwelling units per acre, potential new units that could be added based on the acreage of each land use type, and population estimates. Non-residential uses are characterized in terms of potential floor area in square feet. The total figures are the maximum at plan buildout. Figure 3.4 – Peck Ranch Master Plan Areas illustrates where the land use areas are located.

3.7: Peck Ranch							
Land Use	**Acres** [1]	**Land Use Distribution**	**Units /Acre**	**Existing Units**	**Potential New Units**	**Population** [2]	**Non Res. Square Feet** [3]
Residential Single Family (RSF)	54	8.5%	4.3	–	300	1098	–
Residential Multi-Family (RMF)	6	0.9%	13.6	–	82	300	–
Commercial Retail (CR)	10	1.6%	–	–	–	–	26,500
Commercial Service (CS)	36	5.6%	–	–	–	–	80,400
Mixed Use (MU)	4	0.6%	10	–	40	146	47,100
Recreation (Rec)	12	1.9%	–	–	–	–	–
Creek Area (C)	184	29.1%	–	–	–	–	–
Agriculture (AG)	257	40.4%	–	–	–	–	–
Streets, Trails, etc. (includes Hwy)	70	11.1%	–	–	–	–	–
Total	**633**	–	–	–	**422**	**1,545**	**164,000**

Notes:

1. Represents gross acreage, including internal streets and alleys.
2. Population estimates are based on 3.66 persons per household.
3. Non-residential floor area is based on floor area averages for each land use area, build-out assumptions of less than 100% in the Commercial Retail, Mixed Use and Commercial Service areas. Approximately 24,000 square feet of floor area would be located on the detached CS site located outside of the URL.

The Commercial Service area on the Peck Ranch is intended to provide two distinct uses. The 25.8 acres of Commercial Service along Highway 46 are intended for visitor-serving uses and the 14.2 acres along Centre Street are intended for business park uses. The visitor-serving site will utilize an on-site well and septic system; therefore, the FAR will likely be less than 0.20. Uses could include a service station, lodging and visitor-related retail sales. Site design should include smaller, low-profile buildings with a village character and setting and/or agricultural style that blends with the surrounding area. Landscape materials should be selected to significantly break-up the views from Highway 46 and West Centre Street.

The business park area would accommodate light-industrial, office and other businesses that could provide head-of-household jobs. FAR for the business park should be close to 0.35, allowing additional room for larger landscape areas along Centre Street. As with the site in the Halpin Master Plan Area, it is important for this site to develop in a timely manner so that commercial development keeps pace with residential development and the economic policies in Chapter 2 are implemented.

The 12-acre Commercial Retail area is located adjacent to Centre Street and the existing Fire Station. It should accommodate one or more parking-dependent retail tenants such as a grocery or drug store. This area could also provide a site for a health clinic or other civic use.

Mixed Use areas located north of the community park help create a "village"-style development by blending commercial and residential uses. FARs in this area should be 0.5 or higher. Two-story buildings should front onto either the park or a central green or plaza. Uses should be pedestrian-oriented and complement the park, such as cafés, ice cream parlors, coffee shops, and boutique-style shops. Retail shops should be located on the ground floor, with residential units or office space located above. Blocks should be shorter to allow for more corner stores. Street parking should be limited, with shared parking facilities located away from the activity center.

Residential uses within the Peck Ranch include Residential Single Family, Multi-Family Residential, and Mixed Use. Residential Single Family areas should be developed at a density similar to that of neighboring residential units and include an opportunity to increase density up to 12 units per acre as appropriate. Multi-Family residential areas allow up to 20 units per acre and are intended to provide much needed rental and affordable housing. Mixed Use development would be allowable with densities of up to 10 units per gross acre. Concentrating residential density in this area will increase the number of people within walking distance to the adjacent commercial uses and the downtown.

The Peck Ranch includes two additional areas of Recreation (REC) land. One area is approximately four acres in size to allow for expansion of the community park for additional active use facilities. Another area is adjacent to First Street. This site would act as a transition from the adjacent residential neighborhood. It is envisioned that passive recreational uses such as a walking trail, community garden, picnic areas, plaza, or bandstand could be located there.

3.6 Combining Designations

Combining designations are special overlay categories applied in areas of the county with hazardous conditions or special resources. In those areas, more detailed review is needed to avoid adverse environmental impacts or effects of hazardous conditions on proposed development projects. The following areas are subject to special combining designations. In some cases, specific standards have been adopted for an area where a combining designation is applied. Those standards are found in Article 9 of the Land Use Ordinance (Chapter 22.110 – Shandon/Carrizo Planning Area) and are summarized in Chapter 9 of this Community Plan. The standards apply to development proposals, in addition to the standards of Chapter 22.14 of the Land Use Ordinance.

3.6.1 Estrella River, Cholame Creek, and San Juan Creek Flood Hazard (FH)

The Estrella River begins at the confluence of Cholame Creek and San Juan Creek and flows in a westerly direction towards the Salinas River. Cholame Creek drains toward Shandon, flowing in a southwesterly direction, and San Juan Creek flows in a northerly direction from the southeast. According to the Federal Emergency Management Agency (FEMA), the floodplains of all of these creeks are designated as Zone A, which means that they are special flood hazard areas that are capable of being inundated by a 100-year flood (See Figure 7.6). Floodplains are considered a high-level constraint due to flooding hazards and channel instability. Existing parcels and proposed development within the floodplain are subject to FEMA and County Land Use Ordinance development standards and requirements. The 100-year flood levels on these water courses are designated Flood Hazard on the official Combining Designation maps.

3.6.2 Shandon Liquefaction (GSA)

The entire area within the Shandon Urban Reserve Line has a high potential for liquefaction according to the Safety Element of the County General Plan. Due to the presence of unconsolidated alluvial material and shallow groundwater, there is a high potential for liquefaction and seismically-induced settlement.

3.6.3 Shandon Vicinity Creek and Habitat (SRA)

The areas identified as Creek Area (C) and Habitat Area (H) in this Plan are included in the SRA combining designation on the Official Maps. The Creek Areas correspond to the 100-year floodplains of Cholame Creek, San Juan Creek and the Estrella River. The riparian forest and a portion of the adjacent upland areas associated with the Estrella River, Cholame Creek and San Juan Creek are important wildlife habitat for the San Joaquin kit fox, Western burrowing owl and other wildlife species, and serve as important corridors for wildlife movement.

The area identified as a Habitat Area (H) in this plan is another important wildlife movement corridor that is located near the base of the hillside at the easterly edge of the community. Development will need to comply with the stream setbacks and other applicable provisions in the Shandon Community Plan Habitat Conservation Plan (HCP).

The Shandon Vicinity Creek and Habitat Areas provide a buffer between urban development and agricultural uses. Ultimately, they may ultimately contain passive recreational uses or remain as undeveloped portions of larger properties, with more intensive uses located outside of these Creek and Habitat areas.

3.7 Land Use and Neighborhood Design Policies

Communitywide

LUND-1 Balance residential, commercial and other development in order to provide the best opportunity to meet the employment opportunities and the daily shopping, recreational and other needs of the growing community.

LUND-2 In order to help maintain the community's character within its rural setting, expansion of the community should occur first on infill lots (within the URL that existed prior to adoption of the 2012 Community Plan) or within Area 1, as shown in Figure 3.5, prior to development on the agricultural lands in Area 2 of Figure 3.5. Development within Area 2 may occur prior to development on infill lots or development in Area 1 if it meets one or more of the following criteria:

a. It provides a land use that cannot be accommodated on an infill lot or within Area 1 of Figure 3.5;

b. It provides convenient neighborhood shopping or services;

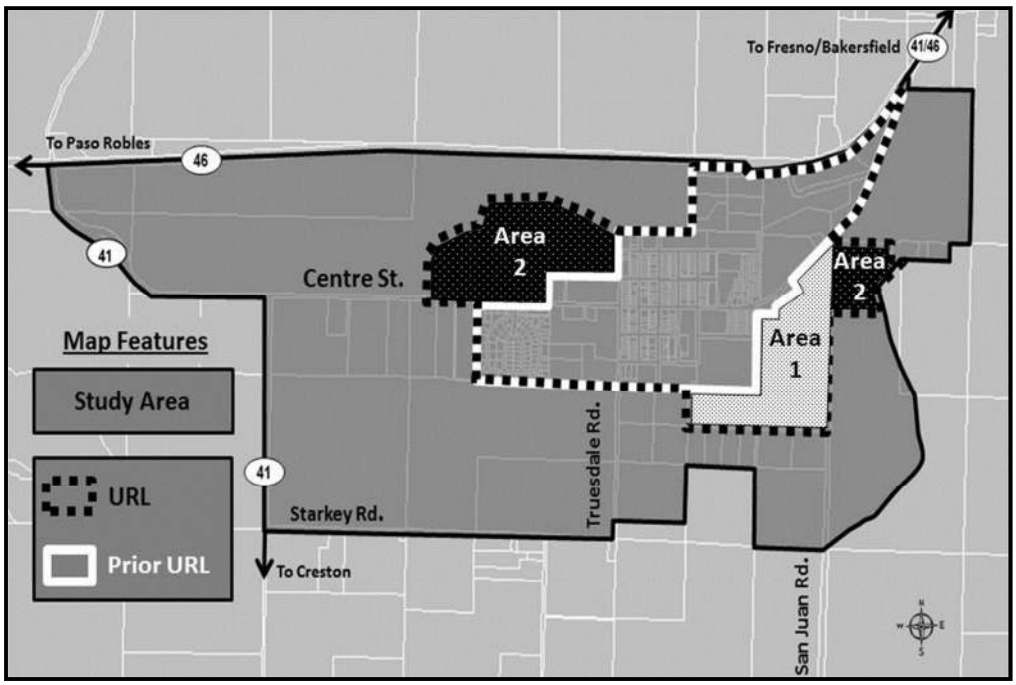
c. It helps provide a sufficient amount of development needed to finance community-scale infrastructure;

d. It is determined by the Planning Director that the infill lots and Area 1 are sufficiently built-out; or,

e. It is determined by the Planning Director that there has been a lack of interest to develop the infill lots and Area 1.

Figure 3.5

Community Expansion



LUND-3 Locate most medium and high-density residential uses and higher-intensity non-residential uses within one-quarter mile of future transit stops and/or neighborhood serving commercial centers.

LUND-4 Encourage a mix of uses in neighborhood centers through the review and approval of proposed development projects as follows:

In neighborhood centers that have a mix of land-use designations, give strong consideration to incorporating uses such as neighborhood commercial, civic and institutional uses, parks and open space, and plazas and squares as appropriate into development proposals. Make exceptions for uses that are found to be infeasible or unnecessary at the particular location, for example, because they are provided in close proximity.

Commercial

The following commercial design policies apply within the **Commercial Retail (CR), Commercial Service (CS), and Mixed Use (MU) areas (refer to Figure 3.1.2).**

LUND-5 Encourage compact urban form by allowing floor area ratios consistent with those found in small downtowns rather than suburban settings.

LUND-6 Commercial development should be designed to foster walking within the commercial area and connect to adjacent neighborhoods. Utilize compact form where appropriate to maximize proximity to commercial uses.

LUND-7 Locate and design commercial and mixed-use development to become hubs of social and economic activity.

LUND-8 Locate pedestrian-oriented uses on the ground floor of each non-residential structure. These may include walk-in uses such as restaurants, retail stores, health/fitness facilities, personal services, community service organizations, and similar uses.

LUND-9 Avoid "commercial strips" where long blocks are dominated by parking lots, and encourage the grouping of commercial land uses in core areas.

LUND-10 Work with the community to establish and maintain an architectural style that reflects community preferences.

LUND-11 Commercial development shall provide appropriately-scaled public amenities such as plazas or gathering places, outdoor dining, architectural and landscape features, fountains, art, and street furniture.

LUND-12 New commercial developments should incorporate design elements to minimize visual and noise impacts and achieve compatibility when adjacent to residential neighborhoods.

LUND-13 Commercial uses that require large amounts of parking should be located away from the downtown core.

Residential

LUND-14 Design new residential development projects to integrate with existing neighborhoods where possible. Design new subdivisions so that individual, separately-developed projects work together to create true neighborhoods with a sense of identity, rather than disjointed or isolated enclaves.

LUND-15 Design multi-family development to be compatible with surrounding single family residential development in form and architectural character.

LUND-16 Encourage the development of multi-family residential units together with single family development in order to achieve the overall mix of multi-family and single family residential development in the land use plan.

LUND-17 Provide adequate buffers between residential and incompatible non-residential land uses, consistent with County standards.

LUND-18 Discourage residential developments that appear as continuous walled-off areas disconnected and isolated from the rest of the community. Although walls and fences may be useful for security, sound attenuation, and privacy, employ other creative design solutions using a variety of materials, heights, lengths and landscape materials where feasible in order to meet these objectives and create a welcoming neighborhood appearance.

LUND-19 Provide a mix of residential housing types affordable to a wide range of income groups, consistent with the goals, policies and programs of the San Luis Obispo County General Plan.

Open Space and Recreation

LUND-20 Provide adequate open space, trails, parks, and recreational facilities that are centrally located and linked throughout the community in order to meet the needs of the community residents.

3.8 Land Use and Neighborhood Design Implementing Programs

LUNDIP-1 Work with the community to identify grants or other programs to help redevelop single family residences into live-work arrangements.

LUNDIP-2 Coordinate with Caltrans to relocate their maintenance yard on Centre Street to a more suitable location.

LUNDIP-3 If there is interest and a likely source of funding (see PEIP-2 in Section 2.4 of this Plan), work with business and property owners and the community to prepare and implement a downtown enhancement plan that could include traffic calming measures, street trees, landscaping, lighting, street furniture, and gateway amenities. This program is dependent upon completion of a route transfer of this section of Centre Street from Caltrans to the County.

Chapter 4: Natural and Cultural Resources and Conservation

This chapter provides direction regarding the preservation and protection of natural resources, cultural resources, and energy conservation. Shandon's setting, adjacent to Cholame Creek, San Juan Creek and the Estrella River includes natural resources that are important not only for aesthetic value, but also for environmental quality, habitat protection, recreation, and agriculture. Adjacency to water courses is also significant for pre-historic and historic cultural activities. The preservation and protection of these resources and Shandon's historical character is an important goal of the Community Plan.

4.1 Natural Resources

Dominant natural communities within Shandon include willow-cotton wood riparian forest, featuring a rather dense, extensive stand along the Estrella River, and sparser stands of riparian trees along Cholame Creek and San Juan Creek. Fields of non-native annual grassland also are located throughout the landscape, interspersed with patches of coyote brush scrub, and less commonly, saltbush scrub. Agricultural fields and vineyards also contribute to the natural setting. Ruderal (disturbed) areas with primarily weedy vegetation are common along road edges, adjacent to fields and pastures, and between residential developments.

4.1.1 Biological Resources

The Study Area is characterized by five plant communities and wildlife habitats: willow-cottonwood riparian forest, non-native annual grassland, agricultural fields, vineyards and ruderal (disturbed).

Willow-Cottonwood Riparian Forest
These communities feature tall, open, broad-leafed, winter-deciduous riparian forests dominated by Fremont cottonwood and arroyo willow. These areas support cover for wildlife and good foraging habitat. Riparian zones help provide corridors for migratory birds and mammals and its habitat value increases when water is present. *(Shandon Study Area Environmental Constraints Analysis – Morro Group, Inc.).*

Non-Native Annual Grassland
Non-native annual grassland is found throughout California, primarily below 3,000 feet elevation on fine-textured, usually clay soils. This vegetation type is dominated by introduced annual grasses in association with many species of showy native forbs, especially in years of abundant rainfall. These grasses and flowers germinate with the onset of late fall and winter rains. Growth, flowering, and seed-set take place from winter through spring. Most annuals in this community die by summer and persist as seeds until the return of winter rains.

In the Study Area, non-native annual grassland is concentrated in undeveloped fields adjacent to the Estrella River riparian corridor. These grasslands are dominated by Mediterranean species such as soft chess brome, Italian ryegrass, and wild oats, as well as various weedy associate species. Patches of coyote brush scrub and saltbush scrub are also located sporadically in some of these grasslands. *(Shandon Study Area Environmental Constraints Analysis – Morro Group, Inc.).*

Agricultural Fields
Agricultural production within and in the vicinity of the community includes pastures, dry croplands, mixed croplands, specialty crops, and row crops. Production includes grain, table grapes, carrots and other row crops, and cattle. Several agricultural fields, including pastures, hayfields, and fallow fields, are located within the community. As with vineyards, agricultural areas can fragment wildlife habitats and corridors. Although the effects of this landscape alteration are typically not as intense as conversion to viticulture. The vegetation in agricultural fields often provide habitat for small burrowing mammals such as California ground squirrel, white-footed mice, pocket mice, voles, and Botta's pocket gophers. The presence of this small mammal prey base can provide foraging opportunities for various raptors, and foraging and migration opportunities for carnivores such as San Joaquin kit fox. *(Shandon Study Area Environmental Constraints Analysis – Morro Group, Inc.).*

Vineyards
Several vineyards are located within the Study Area. Vineyards often completely replace native vegetation and can fragment wildlife corridors. Despite widespread conversion of large areas of the northern San Luis Obispo County landscape from natural habitats to viticulture in recent years, certain special-status species continue to use vineyards as foraging and dispersal habitat, including the San Joaquin kit fox. Birds also use vineyards as foraging areas. *(Shandon Study Area Environmental Constraints Analysis – Morro Group, Inc.).*

Special Status Plant Communities The CNDDB (2005) has occurrence records for several special-status plant and wildlife species within the community, which are located within the Shandon, Cholame, Shedd Canyon, and Camatta Canyon USGS 7.5-minute quadrangles. The following list contains the names of all special-status species known to occur within the Study Area.

- San Luis Obispo mariposa lily
- Dwarf calycadenia
- Lemmon's jewelflower
- Hall's tarplant
- Temblor buckwheat
- Round-leaved filaree

Special Status Animal Species The following list contains the names of all special-status species known or with potential to occur within the Study area.

- Longhorn fairy shrimp
- Vernal pool fairy shrimp
- Western spadefoot
- Southwestern pond turtle
- Blunt-nosed leopard lizard
- Coast (California) horned lizard
- Silvery legless lizard
- Two-striped garter snake
- San Joaquin whipsnake
- White-tailed kite
- Golden eagle
- Prairie falcon
- Western burrowing owl
- Loggerheard shrike
- California horned lark
- Giant kangaroo rat
- San Joaquin pocket mouse
- Tulare grasshopper mouse
- American badger
- California condor
- Peregrine falcon
- San Joaquin kit fox

4.1.2 Sensitive Resource Areas

The stream corridors, a portion of their adjacent grasslands, and an area along the easterly edge of the URL are designated as Sensitive Resource Areas on the Combining Designations Map in order to protect habitat and migration corridors for wildlife (primarily for the San Joaquin kit fox and Western burrowing owl). These areas are described in Sections 3.1.5 and 3.6.3 in this Plan.

A Habitat Conservation Plan (HCP) will be completed for the San Joaquin kit fox, Western burrowing owl, and Vernal pool fairy shrimp. The mitigation strategies developed in the HCP will likely result in development standards for the community as well as permanent open space or conservation easements through the community.

4.1.3 Water Resources

Water is a valuable and scarce resource; it is essential for Shandon's and the surrounding area's environmental, social, and economic well-being. In 2012, Shandon's entire water needs were met by pumping groundwater in the immediate vicinity of Shandon.

Within the greater Paso Robles groundwater basin, concentrated pumping has created localized pumping depressions and declining water levels. Therefore, maintaining a sustainable water supply is a critical need for the region. To that end, the County Board of Supervisors, on February 1, 2011, approved a Resource Capacity Study and certified a Level of Severity (LOS) III for the greater Paso Robles groundwater basin (refer to Figure 4.1).

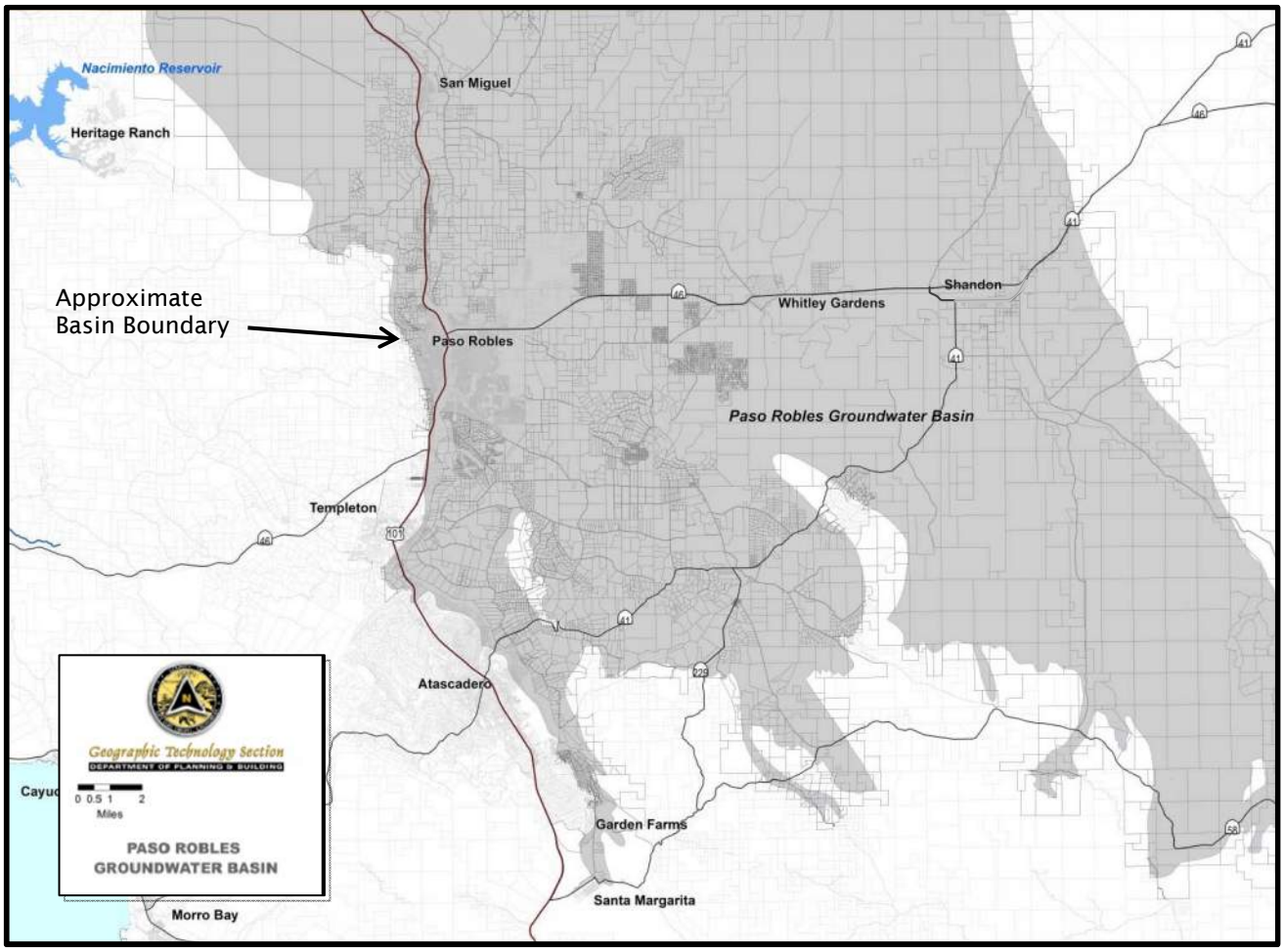
> *LOS III - A Level of Severity III exists when water demand equals the available resource; the amount of consumption has reached the dependable supply of the resource.*

As a result of the LOS III certification, in general, new discretionary development will need to offset its water use with non-agricultural water. Groundwater use can be offset in three basic ways: conserving and making efficient use of water, using supplemental water and /or retiring non-agricultural development. Section 22.110 of the Land Use Ordinance contains standards for new development's water supply for achieving water offsets.

A key supplemental water source is the State Water Project. The State Water pipeline passes through the east side of Shandon. County Service Area 16 holds an allocation for 100 acre-feet per year (AFY) of the State Water Project supply. In order to deliver State water to Shandon, improvements to the State Water delivery system will be required. Section 8.4 lists those improvements as a required infrastructure improvement. However, the 100 AFY State water allocation is enough to supply only about 5/8^{ths} of Shandon's 2012 population. Although the 100 AFY allocation cannot be used for new development, the State Water project has additional capacity that could be used for new development.

Conserving water is an important tool to sustain Shandon's and the region's water supply. This is particularly true in Shandon, due to its drier climate with warm summers. Conserving water resources and using efficient water systems can save up to 20 percent of per capita water use. In addition, a key component of the wastewater treatment facility is its emphasis on groundwater replenishment. The wastewater treatment system is expected to return close to 50 percent of the community's water demand to the groundwater basin.

Figure 4.1
Paso Robles Groundwater Basin



4.2 Natural Resources Policies

NRP-1 Provide adequate buffers between urban development and the following: sensitive biological habitat, agricultural land and stream banks.

NRP-2 Maintain the river and creeks in a natural state.

NRP-3 Prevent water pollution, consistent with federal and state water policies and standards, including but not limited to the federal Clean Water Act, Safe Drinking Water Act, and National Pollutant Discharge Elimination System (NPDES). Development project shall use Low Impact Development strategies to the greatest extent practicable.

NRP-4 Future land uses along the southern edge of the community should be low intensity to discourage urban growth beyond the Study Area.

NRP-5 Development shall be consistent with the Shandon Community Plan Habitat Conservation Plan (HCP).

NRP-6 Preserve oak trees and other native or historically significant trees. Site design should incorporate these trees to the maximum extent feasible with a priority first to avoiding impacts to the trees.

NRP-7 Encourage the use of native, drought tolerant plants in landscaping for new development, including private and public projects.

NRP-8 Maintain a sustainable water supply by encouraging water conservation, maximizing groundwater replenishment, using recycled water, seeking additional supplemental water, and offsetting new non-agricultural water demand.

4.3 Natural Resources Implementation Programs

NRIP-1 Open space lands may be publicly or privately owned. Mechanisms to ensure the long-term preservation of open space should be established, when appropriate, for the protection of important habitat, cultural, recreational, or scenic resources.

NRIP-2 Develop a Habitat Conservation Plan for the San Joaquin kit fox and other critical species. Obtain a Federal "Incidental Take" permit for the community.

NRIP-3 The County should work with the community to maintain viable agricultural land on the periphery of the URL, encourage the continuation of farming activities outside of the URL, and facilitate the continuance of agricultural activities within the community's URL until the land is needed to accommodate population and employment growth.

NRIP-4 The County or a special district to be formed should pursue and secure delivery of additional State Water in excess of the 2012 allocation of 100 acre-feet per year, including any required drought buffer.

NRIP-5 Conduct water conservation workshops for the community that includes information on plumbing fixtures and maintenance, sound landscape and irrigation techniques, greywater systems, and low-impact development.

NRIP-6 New development should fund a toilet retrofit program to replace existing high-flow toilets with low-flow toilets in existing residential and commercial structures. The County should oversee implementation of the toilet retrofit program, which should be in place prior to issuance of construction permits for new development resulting from new land divisions and land use permits subject to discretionary review.

NRIP-7 To encourage water conservation, CSA-16 should explore restructuring its water rates so that water rates increase with water use.

4.4 Cultural Resources

Highway 41/46 corridor has historically served as a traveling route between the coastal areas and the Central Valley. These same routes were previously used by aboriginals for the movement of people and goods as well. The community of Shandon represents one of the few remaining small, agricultural communities that were relatively common in San Luis Obispo County in the late 1800s and early 1900s. Most of these communities have disappeared, leaving behind little physical evidence or written documentation. Consequently, the community of Shandon is in many ways an important historic resource.

4.4.1 Archaeological Resources

The community is within the border territory historically shared by Southern Salinan Indians to the north and East, and Chumash Indians to the south and west. Based on archival records, historical and geomorphological review of the community and phase one archaeological surface of selected key areas of potentially higher archaeological sensitivity, no prehistoric cultural resources were identified in the project study area. About 50% of the more sensitive cultural areas of the community have been surveyed for past projects and no prehistoric cultural resources have been identified; therefore, it is determined that only a low density of cultural sites may be present in Shandon.

There is a low density of archaeological resources occurring within the community, including small archaeological sites located within ¼ mile of water sources *(Shandon Study Area Environmental Constraints Analysis – Morro Group, Inc.).*

A review of ethnohistoric, environmental, and existing archaeological surveys suggest that prehistorically, the area may have been occupied by mobile small groups who focused habitation around available water sources on a seasonal basis. A low density of small seasonal archaeological sites could be located adjacent to water sources. The known surface water sources are located outside the URL. It is also possible that buried prehistoric sites of greater antiquity may occur in the community. These could be located along the Estrella River and San Juan Creek from a time when these water channels contained more water than today. It is possible that cultural sites may have been covered with wind-blown sands in the past. While these sites cannot be identified by surface surveys they could be unearthed during excavations.

4.4.2 Historical Resources

The few historic resources officially recorded in Shandon were discovered as a result of surveys conducted for compliance with the requirements of the CEQA and/or Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, and it's implementing regulations (36CFR, Part 800).

During a 1999 Caltrans cultural resources survey for the widening of Highway 46, discontiguous segments of previous alignments of the highway were recorded. Three historic archaeological sites associated with the domestic remains of homesteads of farming activities were recorded immediately north of Highway 46. The Shandon Cemetery was recorded during this investigation (Glover et.a.1999).

An extensive inventory of rural highways in Caltrans District 5 was completed in 2000. During this project, three historic structures belonging to the Shandon School District were recorded along the length of the 1929 Chevron Oil petroleum pipeline: a residence built in 1926, a 1925 flagpole, and the foundation of a 1921 gas station (Mikkelsen et.al. 2000).

The bridge over San Juan Creek, Caltrans number 49-0098, was built in 1941. It has been evaluated and found to be a Category 5 bridge, not eligible for listing on the National Register of Historic Places (Caltrans 2005).

The entire core of Shandon has been identified as potentially historically significant. Historical deposits (i.e., privies, trash pits, bottles) may be present even where there are no standing structures. On First and Second Streets north and south of Centre Street are numerous buildings well over 50 years in age, although some of these may have been moved to their current location from the pumping station northeast of town. Table 4-1 lists potentially eligible properties within the community.

The small development to the west of downtown appears to be largely composed of recent construction. Two residences are square houses with wrap-around porches and monitor ceilings for cooling, indicating that there is the potential for these residences to be considered historic resources. The location would have been attractive at an early date as it is set upon a low hill *(Shandon Study Area Environmental Constraints Analysis – Morro Group, Inc.).*

Table 4.1: Historical Buildings Within The Project Study Area

Location	Building Description/Use
Southwest Corner of Centre Street and 2nd Street	United Methodist Church, founded May 1891
Southwest Corner of 2nd and Camatti	Lions Club/Community Center
240 Centre Street	House, now used as an office
400 East Centre Street	House with a monitor barn and a small out building
North end of 4th Street	Board and batten shed (may have been moved)
Northeast corner of 3rd and Camatti	White painted Barn/Garage with clap-board sheathing
Northeast corner of 3rd and Centre	Stuccoed commercial building, extensive remodeling but may date to an earlier period
140 3rd Street	According an occupant of the property, this house was moved from Camp Roberts to its current location after World War II. Numerous historic and prehistoric artifacts were found in the immediate vicinity of the house when a new septic system was installed next door.
354 Paraiso Place and 366 Mesa Grande Drive	Square houses with wrap around porches and monitor roofs for cooling
384 Mesa Grande Drive	House and outbuildings

4.5 Cultural Resources Policies

CRP-1 Protect and preserve archaeological resources, paleontological resources, and significant historic resources to the maximum extent feasible, with priority given to avoidance of resources over mitigation for disturbed or destroyed resources.

CRP-2 Protect and preserve significant landscape features including native trees, riparian vegetation, and trees with significant aesthetic or historic significance cultural heritage.

4.6 Cultural Resources Implementing Programs

CRIP-1 The County should complete an inventory of historical resources within Shandon to identify significant properties that may require additional treatment in the event of proposed future building alterations, and to determine whether the core area of the community qualifies as a historical district. The inventory should identify significant buildings, structures, and sites; determine which resources contribute to the significance of any such district, and determine where the boundaries of such district are located. This inventory would narrow the range of buildings and properties that require evaluation as potential historic resources. If appropriate, an "H" Historic Site designation may be added to the official Combining Designation map or an alternative preservation measure per the Conservation Element.

4.7 Energy Conservation

Energy conservation and increasing the use of renewable energy sources can benefit both the environment and the economy. Residential energy costs can be lowered by using energy efficient building materials and appliances, passive solar design and individual photovoltaic systems. Commercial facilities will have lower operating costs by saving energy through more efficient construction and operation. Fuel consumption can be reduced by using alternative transportation or living and working in town. The Community Plan encourages the use of renewable energy, implementing "green building" techniques, taking advantage of the sun, and maintaining Shandon as a walkable community. Land use and transportation are discussed in Chapters 3 and 5, respectively; this section identifies other techniques that can be implemented that will contribute to the reduction in energy consumption.

Photovoltaic (PV) Panels can be used to convert sunlight into electricity. The panels can vary in size, style and capacity. They may be roof-mounted or ground mounted. They can augment the energy supply or, if generated, excess electricity can possibly be sold back to the utility company (referred to as "Net Metering"). Larger systems can be placed on commercial roof tops or built to a scale capable of serving the entire community.

- The use of energy efficient building materials and techniques can reduce a building's overall energy consumption by keeping buildings warmer in the winter and cooler in the summer. Using materials with a high content of recycled material is also beneficial to the environment.

- Building site design that takes in account solar orientation, the use of natural day-lighting, passive water heating systems, reduced pavement, and proper placement of deciduous and evergreen trees.

- Planting additional trees in public places throughout the community.

- Water conservation techniques including low water-using plumbing fixtures, "xeriscapes" (low-water using landscapes), and using recycled water.

4.8 Energy Conservation Policies

The following policies are intended to serve as a foundation for guiding the implementation of a green building and sustainability program for Shandon. The policies that follow are intended to be flexible to allow creativity and variety in application.

ECP-1 Implement energy efficient systems and devices, as well as the conservation of energy throughout Shandon.

ECP-2 Implement water conservation for interior consumption, landscape consumption and water recycling.

ECP-3 Implement "green building" techniques and sustainable design throughout Shandon.

ECP-4 Preference shall be placed on site and building design that takes advantage of solar exposure and energy.

ECP-5 Encourage the use of landscape features that aid in regulating the temperature of buildings, and in and around parking lots that reduce "solar gain" in summer and allow "solar gain" in winter.

ECP-6 Support the use of renewable, locally sourced and environmentally superior building materials and products.

ECP-7 Encourage site design and circulation patterns that enable reducing vehicle trips.

4.9 Energy Conservation Implementing Programs

ECIP-1 Provide energy conservation workshops for the community.

ECIP-2 Establish a community tree planting program to plant and maintain street and other trees throughout Shandon, and seek grants to fund such a program. Work with the County Public Works Department, County Parks, the Shandon Advisory Council, local community groups, and other organizations to establish a program, obtain low-cost trees and expertise, and plant and maintain trees.

Tree species should be selected from the Shandon Community Plan Master Tree List. The design, placement and types of street and other trees should be in accordance with a master tree plan that creates a unifying theme for the community. Special design concepts could be developed for distinct areas, such as:

- Community gateways
- The central business district
- Centre Street
- Neighborhoods
- Parks and other public spaces

ECIP-3 Evaluate the use of solar power to operate the wastewater treatment plant.

ECIP-4 Work with the community to pursue a communitywide solar energy system.

Chapter 5: Transportation and Circulation

This chapter is the Circulation Element for the area within the Shandon Urban Reserve Line.

Safety, efficiency, and pedestrian mobility are paramount in the design of transportation and land use patterns in Shandon. The circulation system is designed to provide an interconnected network of motorized and non-motorized travel, and allow convenient access between neighborhood amenities and residential units.

Shandon's inclination for walking should be enhanced with the provision of sidewalks, bikeways, and trails. The use of landscaped parkways, street trees, cul-de-sacs open to pedestrians, linear greens, and other pedestrian oriented elements contribute to the walkable quality of neighborhoods.

Shandon's circulation system will generally consist of a grid street patterns that will connect new development to existing neighborhoods. The Community Plan will provide for convenient access from surrounding neighborhoods to activity centers and commercial areas. The Community Plan discourages the use of typical dead-end cul-de-sacs and promotes utilizing cul-de-sacs that provide pedestrian and bicycle access to open spaces, parks, sidewalks, or other streets. The backbone of Shandon's circulation system will continue to be Centre Street, which will reach arterial thresholds with plan buildout. Truesdale Road/1st Street and San Juan Road will continue to be designated as collectors and carry higher traffic volumes. Local streets will serve neighborhoods. Pedestrian sidewalks, bicycle lanes and pathways will serve non-motorized circulation. Highway 46 that runs along the northerly edge of Shandon is the principal arterial serving Shandon. All streets will be designed to County or Caltrans standards and specifications. Please refer to Figures 5.1 through 5.5.

5.1 Connection to Existing Neighborhoods

The Community Plan provides an extension of the existing circulation system. New streets within the URL connect to the existing community, creating a consistent street scene with convenient access for motorists and pedestrians. Amenities including parks and commercial nodes are centrally located to support the community. In order to improve pedestrian mobility, cul-de-sacs open to pedestrian/bike traffic are encouraged to increase pedestrian accessibility to neighboring development.

5.2 Principal Arterial

Highway 46 between West Centre Street and East Centre Street is planned to be widened to four lanes. This is a State project within Caltrans' jurisdiction. Eventually, Highway 46 will be widened to four lanes between Paso Robles and "the Wye," where Highways 41 and 46 meet near Cholame, northeast of Shandon. The intersections of Centre with SR 46 at the west and east ends of the Study Area will require improvements for safer access to the highway. Please refer to Chapter 8, Table 8.3.a to see a list of the required improvements.

5.3 Arterial Streets – Highway 41 and Centre Street

Arterials are designed to handle a larger volume of traffic and provide for major routes through town. Highway 41 is an arterial that runs conterminously with West Centre Street from Highway 46 for approximately one mile where Highway 41 heads south toward Creston and Atascadero and West Centre Street continues east into town. Centre Street is designated as an arterial between Highway 41, through town to Highway 46 at east Centre Street. The Centre Street right-of-way will provide for travel lanes, turn lanes, bicycle lanes, sidewalks and landscaped parkways. Where the right-of-way is wide enough, sidewalks and bicycle lanes will be detached.

5.4 Collector Streets

Collector streets provide the link between arterials and local streets. The Community Plan identifies two north-south collector streets: San Juan Road and Truesdale Road/1st Street. Additional collectors may be needed to serve development north and west of the community park. Collector streets include two 12-foot wide travel lanes, eight-foot wide parking dedications, bicycle lanes and two options for street edge treatments (see Figure 5.3).

5.5 Local Streets

Local streets provide access to individual lots and form the internal neighborhood circulation system. The layout and connectivity of local roads are designed to feel open while providing safety and accessibility for the pedestrian and motorist. Local public streets include 10-foot travel lanes in each direction and accommodate on-street parking on each side (see Figure 5.4).

5.6 Alleys

Alleys provide access to residential garages located in the rear of a lot. Alleys will be designed as welcoming spaces through the incorporation of landscaping, setbacks, and decorative fencing. Alleys are also encouraged in other areas where vehicular access is limited or constrained along frontages.

5.7 Cul-De-Sacs

Cul-de-sacs should be designed to provide pedestrian and bicycle access to open spaces, parks, sidewalks or other streets while restricting through automobile traffic. The use of dead-end cul-de-sacs (that provide access to the fronting lots only) is discouraged. In situations where major streets with walls adjoin residential areas, access to the cul-de-sacs should be provided by wall openings with pathway connections.

5.8 Pedestrian and Bicycle Routes

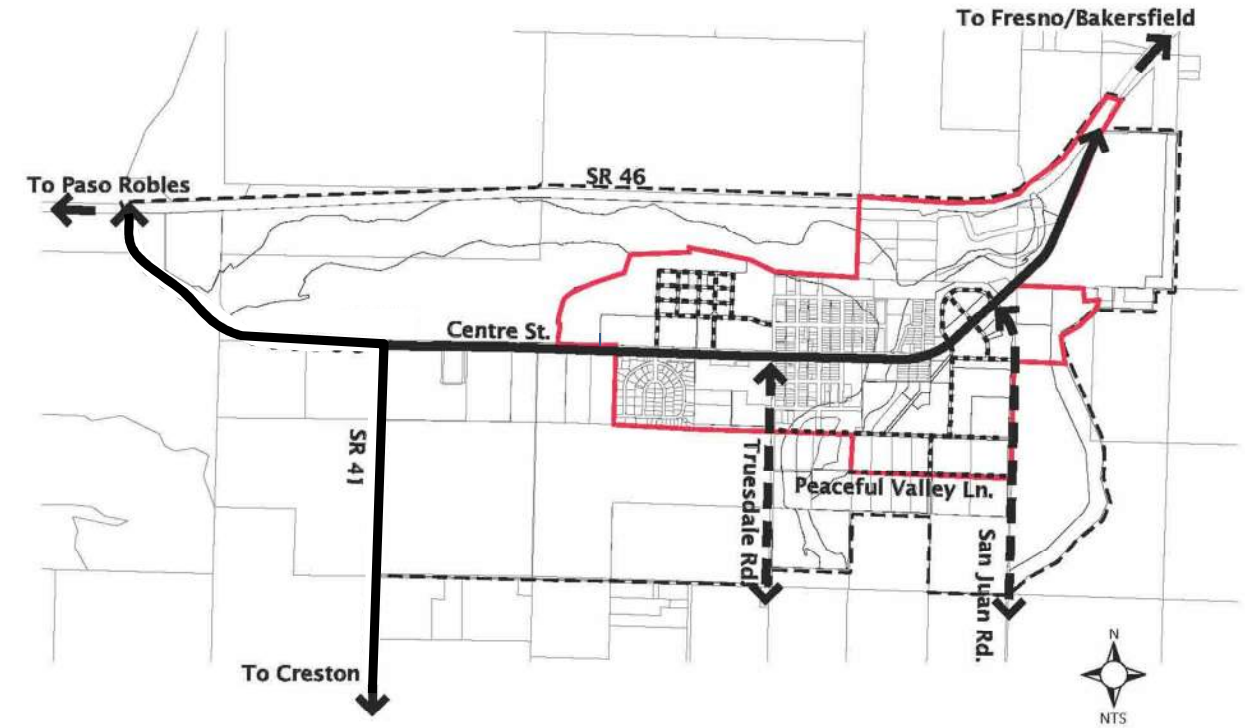
Pedestrian and bicycle transportation can be a desirable and healthy alternative to motor vehicle transportation. Pedestrian and bicycle routes should be provided throughout the community as both a transportation alternative and as a major amenity feature. They may be incorporated into the street system or via a network of community and neighborhood trails. These routes should be safe and conveniently connect neighborhoods. All bicycle routes and trails must be consistent with the County Bikeways Plan or County Parks and Recreation Element.

The majority of roads within the URL include sidewalks on both sides to the various focal points of the community, such as the Crawford W. Clarke Memorial Park or commercial nodes. Within the commercial nodes and other multi-housing family areas, bicycle racks will be provided to encourage alternatives to driving.

A new pedestrian and bicycle bridge across San Juan Creek is needed to provide improved access to the west side of town.

5.9 Public Transit

The circulation system within the community is designed to provide public transportation services. Transit stops should be located at key destination points such as commercial centers, multi-family residential areas, and parks. Transit stops shall provide access for pedestrian and bicycle connections, and shall be located within a quarter mile of neighborhoods. All transit stops should include climate protection structures, lighting and seating areas, and shall have adequate right-of-way to provide access to the circulation system.



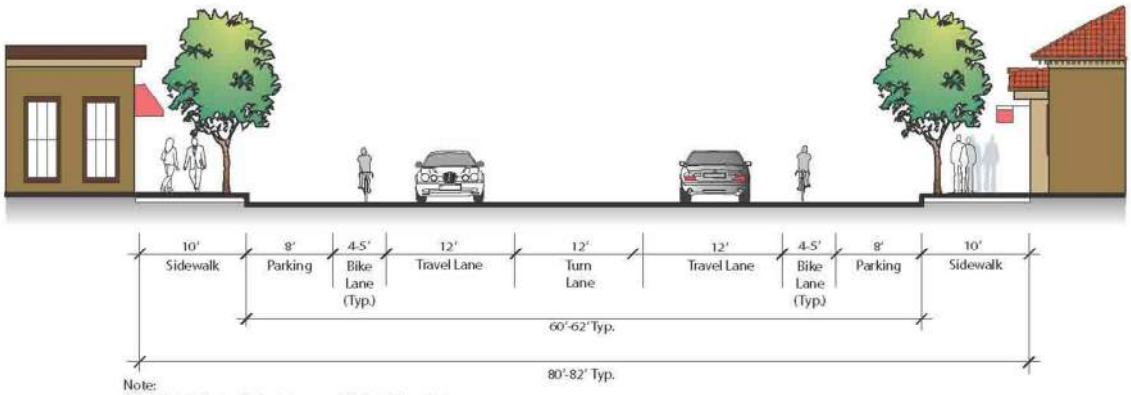
MAP FEATURES

- Proposed SR 41
- Arterial Road (ADT 5001-16000)
- Collector Street (ADT 500-5000)
- Proposed Streets
- Urban Reserve Line
- Study Area

Note: The street layouts on the Master Plan Areas are conceptual. Please refer to Section 3.2 that describes the process and timing for establishing the actual locations.

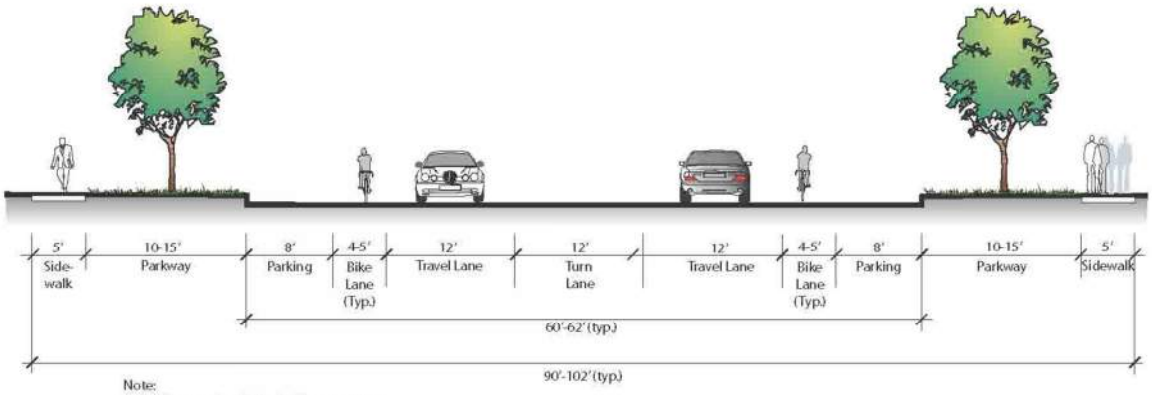
SHANDON COMMUNITY PLAN

Figure 5.1
Circulation Plan



Note:
1. Ten feet is the typical minimum width for sidewalks in commercial areas. Sidewalk widths may be as narrow as six feet where constraints exist.

Centre Street
between 1st Street and San Juan Road
(Except at the San Juan Bridge)

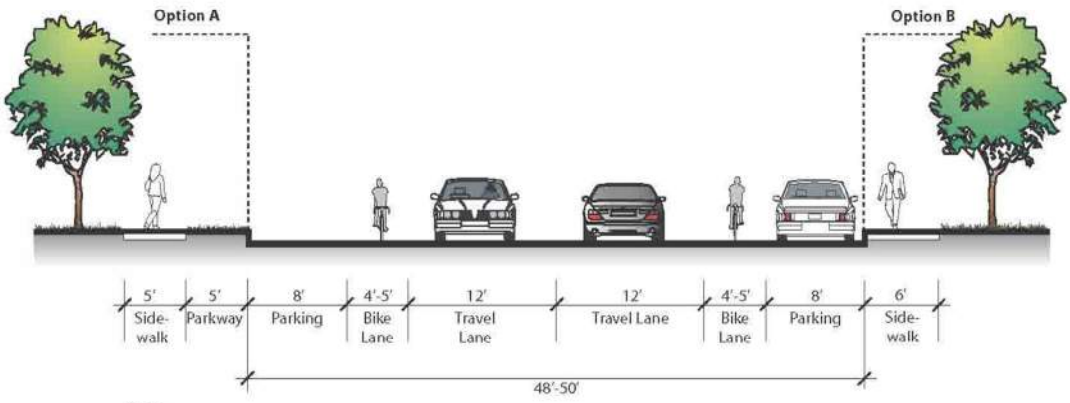


Note:
1. Parking may be eliminated in some areas.
2. Bio-swales may be used for run-off where approved by County Department of Public Works.

Other Arterial Road Locations

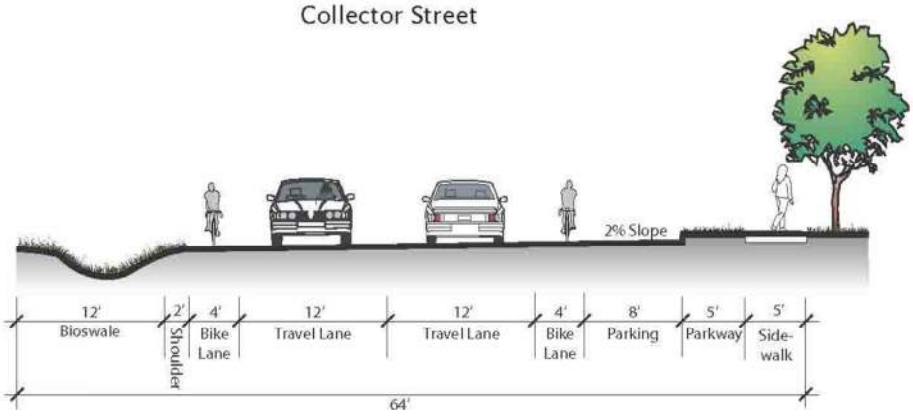
SHANDON COMMUNITY PLAN

Figure 5.2
Arterial Streets



Note:
1. The minimum width for Option A is 68'.
2. The minimum width for Option B is 60'.
3. Road widths may be increased to accommodate turn lanes.

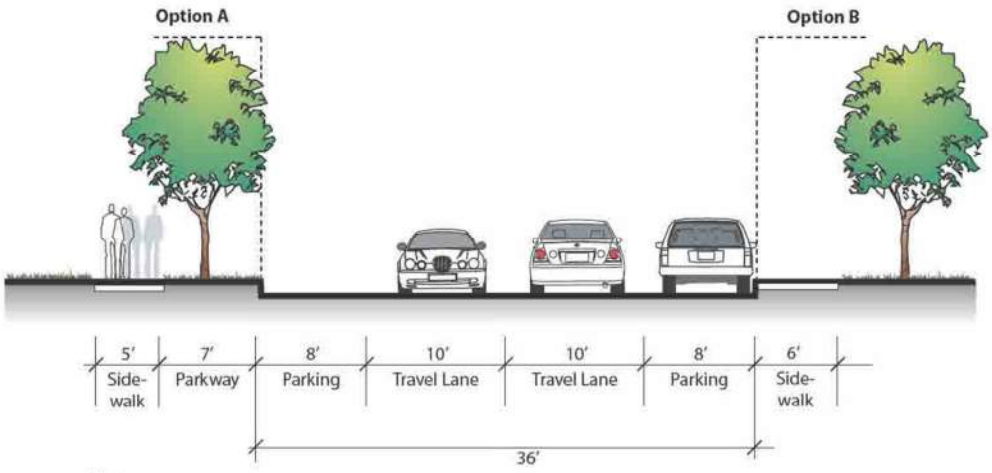
Collector Street



Note:
1. Parking may be eliminated in some areas.
2. Bio-swales may be used for run-off where approved by County Department of Public Works.
3. Road widths may be increased to accommodate turn lanes.

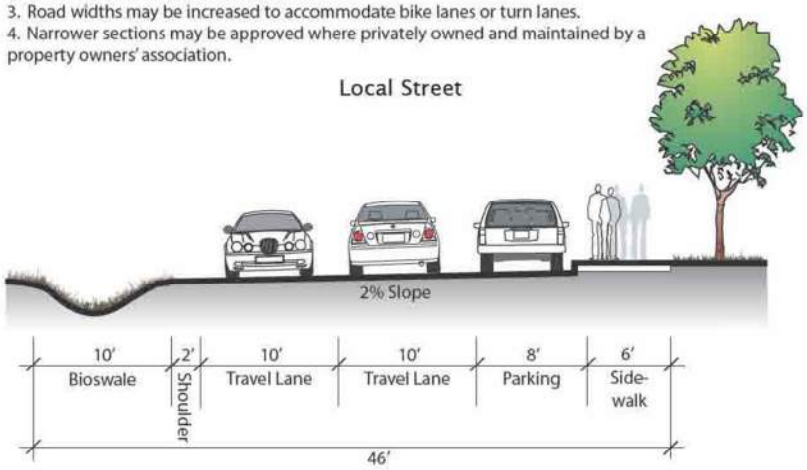
Collector Street Alternative

Figure 5.3
Collector Streets



Note:
1. The minimum width for Option A is 60'.
2. The minimum width for Option B is 48'.
3. Road widths may be increased to accommodate bike lanes or turn lanes.
4. Narrower sections may be approved where privately owned and maintained by a property owners' association.

Local Street

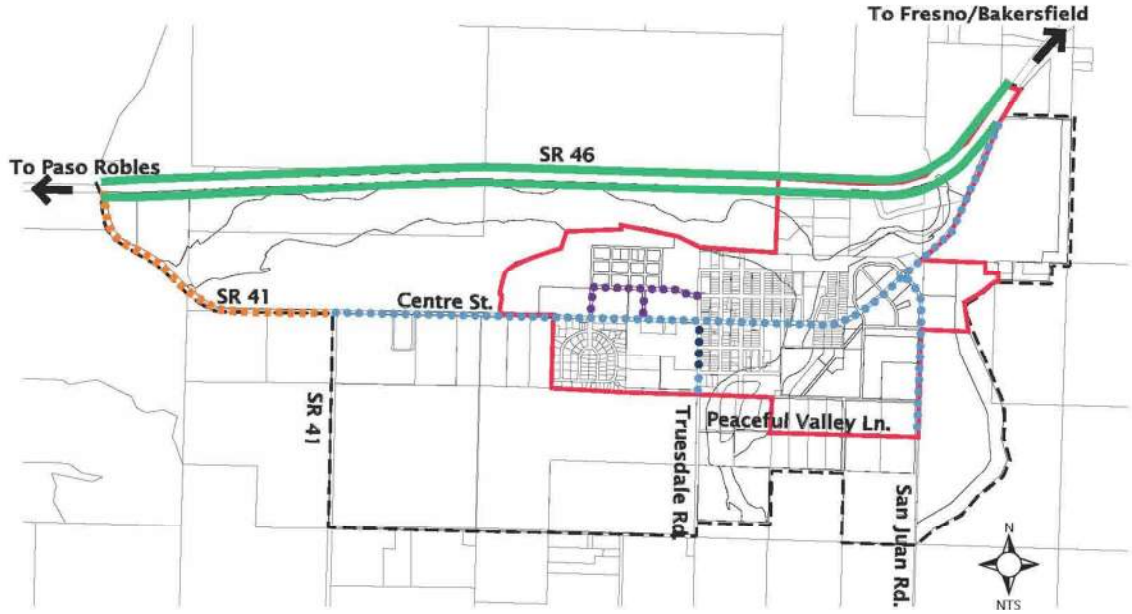


Note:
1. Bio-swales may be used for run-off where approved by County Department of Public Works.
2. Road widths may be increased to accommodate bike lanes or turn lanes.
3. Narrower sections may be approved where privately owned and maintained by a property owners' association.

Local Street Alternative

SHANDON COMMUNITY PLAN

Figure 5.4
Local Streets



Notes:
1. The proposed Class II designation on Centre Street is pending the proposed transfer of right-of-way to the County.
2. The actual location of the Class II routes on the Peck Ranch Master Plan Area to be determined with subdivision approval.

MAP FEATURES

- Class II (Existing)
- Class II (Proposed)
- Class II (Potential)
- Class III (Existing)
- Shandon to Paso Robles Multi-Use Trail Corridor (Identified in Parks and Recreation Element)
- Urban Reserve Line
- Study Area

Figure 5.5
Bike and Trail Plan

5.10 Traffic Control and Traffic Calming

Community streets are not just a system for moving vehicles, but an environment that is shared by pedestrians, bicyclists, parked vehicles, and people socializing. In addition to traditional controls for moving traffic, a street system also needs features that "calm" traffic and help create a safe and enjoyable community environment. Traffic control elements include items such as stop signs, signal lights, turning lanes, posted speed limits, crosswalks, and directional signage. These elements help keep traffic moving in an orderly, efficient and safe manner. However, the effectiveness of traffic control elements often depends on a community's enforcement capabilities. Traffic calming features are also designed to help move traffic, while reducing speeds and fostering a comfortable, safe environment. Traffic calming features are physical rather than regulatory. They may include changes in the driving surface (texture, pattern or color); geometric design features such as narrower pavement, roundabouts, or intersection bulb-outs; and vertical elements like street trees and buildings near sidewalks (see Figure 5.6). The inclusion of traffic control elements and calming features will help create a safe and enjoyable community environment.

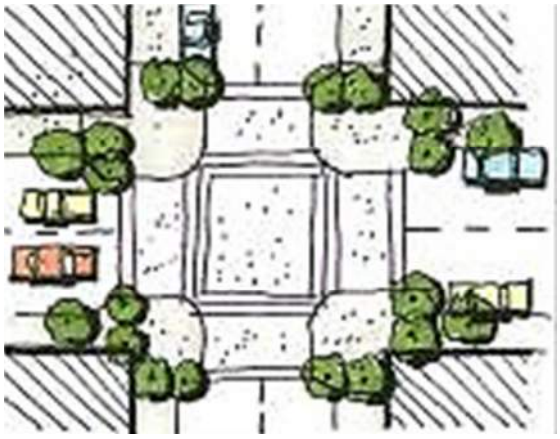


Figure 5.6
Traffic Calming Features

5.11 Transportation and Circulation Policies

TC-1 Provide for a safe and efficient circulation network for the movement of people and goods for motorized vehicles, pedestrian and alternative modes of transportation.

TC-2 Create bicycle, pedestrian and recreational paths, and where feasible, independent of roadways.

TC-3 Improvements to Highway 46 at West Centre Street and East Centre Street are paramount for better access and traffic safety.

TC-4 Maintain adequate levels of service and pavement conditions on public roads.

TC-5 Require new development to safely accommodate anticipated traffic volumes and drainage.

TC-6 Discourage single-occupant vehicle trips, and encourage uses that will reduce the need for and/or vehicle miles traveled.

TC-7 Establish an interconnected circulation system between various land uses and neighborhoods within the community, discourage dead-end streets, and encourage through streets to help reduce vehicle miles traveled, minimize traffic congestion, and help minimize emergency response times.

TC-8 Utilize traffic control elements and traffic calming features, as appropriate, to help create a safe and enjoyable environment.

TC-9 Develop a new pedestrian and bicycle bridge across San Juan Creek to provide improved access over the creek along Centre Street.

5.12 Transportation and Circulation Implementing Programs

TCIP-1 Review traffic volumes and levels of service for major roads and intersection, and update road classifications as necessary to reflect circulation patterns.

TCIP-2 Work with the community and the Bicycle Advisory and Trail Advisory Committees to develop new pedestrian, equestrian trail and bikeway routes and specifications and amend the County Bikeways Plan and County Parks and Recreation Element, as needed.

TCIP-3 Pursue development of a Community Facilities District and other methods for funding circulation mitigation measures, including those needed at Highway 46.

TCIP-4 Work with the community, SLOCOG and the Regional Transit Authority to develop a long-term transit plan and improve access to transit options.

Chapter 6: Public Facilities and Services

This Chapter discusses the public facilities and services needed to serve the community. Public services addressed in this chapter include schools, parks and recreation, solid waste disposal and recycling, emergency medical services, library services, fire protection, and law enforcement. One of the basic principles of the Shandon Community Plan is to ensure that adequate public infrastructure and services will be provided in a timely manner to serve both new and existing development.

6.1 Public Schools

Shandon is served by the Shandon Joint Unified School District (SJUSD). In 2012, two school facilities within the community were operated by the school district. Both Shandon Elementary School and Shandon High School are located on the west side of 1st Street south of Centre Street. In 2012, the combined enrollment for both schools was approximately 360 students. The elementary school campus has a capacity of 145 students and the high school campus has a capacity of 187 students. Depending on the needs of the district, middle school students in grades 7 and 8 may from time-to-time attend either campus.

Table 6.1 illustrates the projected student generation at Community Plan buildout. According to the SJUSD, the existing campus sites are capable of handling this projected growth with expansion of school facilities. Pursuant to Section 65995 of the California Government Code, new development will be required to pay fees to mitigate its impacts to schools. The Government Code further specifies that these fees are deemed to be "full and complete" mitigation. The mitigation fees would contribute toward new school facilities. Additional funding for school facilities may be obtained by the use of a Community Facilities District. Please refer to Sections 8.7 for a detailed discussion on public facility funding methods. Figure 6.1 shows the campus locations. Should SJUSD determine a new campus is appropriate; it should be within walking distance of the majority of the student population, accessible via safe routes and be developed concurrent with new development.

Table 6.1: Projected Student Generation at Buildout				
			Projected Student Generation	
Residential Land Use	**Units**	**Population**	**K - 6th**	**7th to 12th**
Residential Suburban	53	194	23	16
Residential Single Family	957	3503	412	297
Residential Multi-Family	278	1017	61	44
Mixed Use*	67	245	15	11
Other Land Use Categories	82	300	35	25
Total	**1437**	**5259**	**546**	**393**

Assumptions: Student generation per household in RSF, RS and "Other" categories: K-6= 0.43; 7-12=0.31.
Student generation per household in RMF and MU* (expansion areas only) categories: K-6=0.22; 7-12= 0.16.

6.1.1 School Policies

SP-1 If new campuses are proposed by the Shandon Joint Unified School District, coordinate the planning, location, and construction of new schools to ensure that facilities are constructed in a timely fashion relative to the phasing of residential development.

SP-2 New Campuses should be located within walking distance from the maximum number of residences possible.

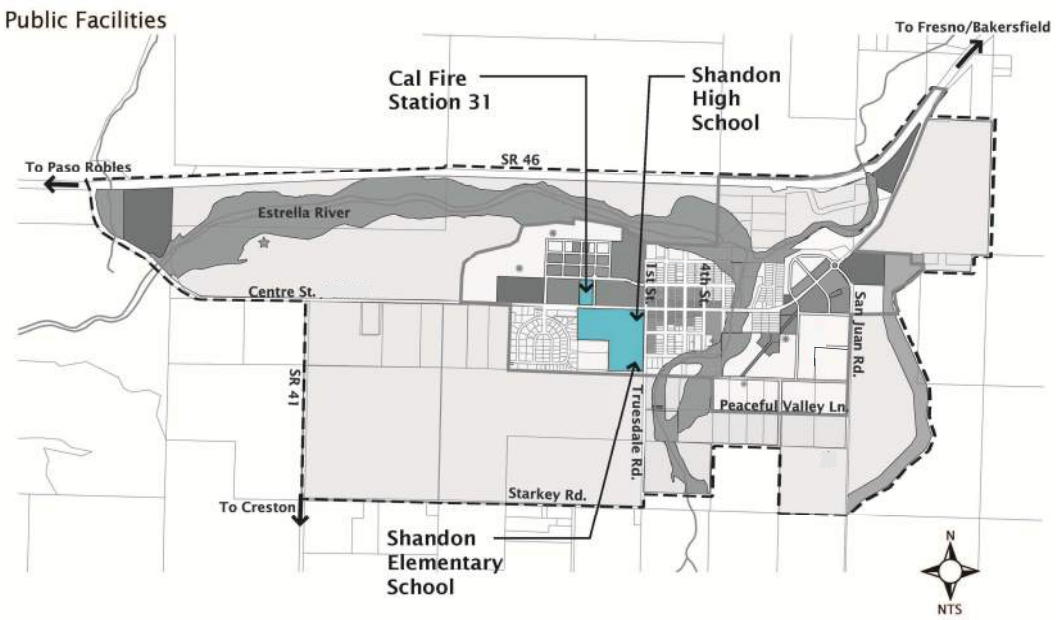
SP-3 New elementary schools should not be located on an arterial.

SP-4 Work toward providing educational facilities that adequately serve the buildout population

6.1.2 School Implementing Programs

SIP-1 In cooperation with Shandon Joint Unified School District, establish a "safe routes to school" program.

SIP-2 Assist the school district in developing school sites and facilities to serve all neighborhoods in the community, and to respond to the educational needs of various sectors of the population.



LAND USES

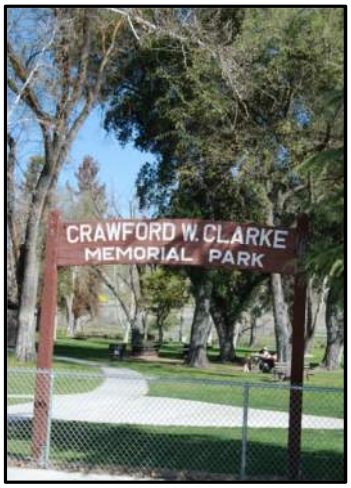
AG	Agriculture
CR	Commercial Retail
CS	Commercial Service
C	Creek Area
H	Habitat Area
PF	Public Facility
REC	Recreation
MFR	Residential (13-20 du/ac)
RSF	Residential (2-12 du/ac)
RS	Residential (1-5 acre lots)
RR	Residential (5-20 acre lots)
MU	Mixed Use

MAP FEATURES

- Urban Reserve Line
- Study Area
- General Location of Potential Park Sites
- General Location of Potential Wastewater Treatment Facility

Figure 6.1
Public Facilities

6.2 Parks and Recreation Facilities



During the preparation of this Community Plan, participants in community workshops ranked the need for additional parks and recreation facilities as a high priority. At buildout under this Plan, Shandon is expected to have approximately 5,260 residents. Meeting the community's future need for parks and recreation will require a total of at least 15.79 acres of parkland (see Table 6.2). On the Land Use Plan, Figure 3.1, the general location of a potential park sites are shown adjacent to Crawford W. Clarke Memorial Park, within Fallingstar as a linear park, and adjacent to the multi-family area at San Juan Road and Toby Way. Also shown are the general locations of other potential park sites scattered throughout the community. Small mini-parks or tot-lots are not shown.

Park and recreation facilities in 2012 included Crawford W. Clarke Memorial Park (an 11-acre community park) with a swimming pool and a community meeting hall, tennis courts, and other day-use facilities. These facilities met the needs for the community at the time the Community Plan was adopted. The community park could be expanded to allow for additional active playfields. To avoid removing mature trees within the park, expansion to the north must include enough area for the playfields. With expansion, the park would account more than the total acreage shown in Table 6.2, however, additional parkland would still be needed in proximity to other residential neighborhoods.

Table 6.2: Parkland Requirements

	Population	Required Park Land in Acres*
Population in 2012	1,194	3.58
Fallingstar	1,446	4.34
Halpin	59	0.18
Peck	1,545	4.64
Other New Development	1016	3.05
Total	**5,260**	**15.79**

*Three acres of parkland are required per 1,000 people

In addition to community parks, other types of parks are also needed: neighborhood parks that serve between 2,500 to 5,000 people, or mini-parks, pocket parks or tot-lots that serve as few as 500 people. Tables 6.3 and 6.4 describe the characteristics of the different parks. Long-term maintenance of parks within the community may be performed by the County Parks Division, a special district, or private association. Also, the Shandon Elementary and High Schools have sports facilities. However, an agreement between the School District and County Parks would be needed before the facilities could be made available to the community.

Table 6.3:
Neighborhood/Community Park Characteristics

Park Size	• Neighborhood Park: 2 to 10 acres • Community Park: greater than 10 acres
Location	• Centrally located within a neighborhood • If possible, within easy walking distance of a community-wide open space corridor • Community parks should be located on a collector or arterial street and should not abut the interior property lines of residential lots. Neighborhood parks should be located on a collector or local street and should avoid abutting the interior property lines of residential lots. • A neighborhood park may be located adjacent to or share a school site or an open space corridor.
Basic Design Elements	• Separate play areas and equipment for young children and older children • Individual and small group picnic areas with tables and individual barbeques • Multi-purpose courts • Appropriately-sized play or athletic fields in larger parks • Trees and structures to provide shade as appropriate in play areas, picnic areas and seating areas • Permanent restroom structures shall be located on site for neighborhood parks greater than 5 acres in size • Drinking fountains • Trash receptacles

Table 6.4: Mini-Park/Tot-Lot/Pocket Park Characteristics	
Park Size	• 0.25 to 2.0 net acres
Location	• Located within residential neighborhoods with a maximum service area of 0.25-mile radius • May be located in Shandon's downtown area • Park should front on at least one street • Sited to avoid or minimize abutting the interior property lines of residential lots
Basic Design Elements	• Small open turf areas for non-organized field play • Play areas and equipment for young children • Seating areas adjacent to play area(s) • Picnic table(s) to accommodate 6-8 people • Trees and / or shade structure, appropriate in play area(s) and seating area(s) • Drinking fountains • Trash receptacles

6.2.1 Parks and Recreation Policies

PRP-1 Provide a variety of park and recreation facilities for all residents in order to promote a healthy community.

PRP-2 Provide community and neighborhood parkland at a minimum of 3.0 acres per 1,000 residents

6.2.2 Parks and Recreation Implementing Programs

PRIP-1 Expand or upgrade Crawford W. Clarke Memorial Park.

PRIP-2 Cooperate with Shandon Joint Unified School District to promote joint development and use of school sites located within the community.

PRIP-3 Work with the community to identify ways to provide a high level of maintenance service for all public parks and recreational facilities.

PRIP-4 Identify opportunities to secure easements or offers to dedicate land for recreational trails.

6.3 Fire Protection and Emergency Medical Services

Fire protection for Shandon is provided by the California Department of Forestry and Fire Protection (Cal Fire). Year-round fire protection is provided by Fire Station 31 on Centre Street, which takes action as the first responder in emergency situations, including medical emergencies, within a 400 square mile area. Fire station 31 is staffed with four firefighters assigned to a Type 3 wildland fire apparatus and a Type 1 engine during the wildland fire season, and two firefighters assigned to a Type 1 engine with access to a Type 3 apparatus during winter months. This is an eight-bed facility and has the space to accommodate additional staff. As the community is built-out, the existing facility will have to be expanded or an additional station will be needed elsewhere in town. Development impact fees will be collected for facility and capital improvements.

Shandon has a Paid-Call Firefighter (PCF) company that responds to all incidents via radio pager. The PCF company has had up to 15 members, but that number has recently declined to 3 members.

In 2011, according to Cal Fire, staffing levels do not allow the department to meet OHSA's "two in, two out" requirement during a structure fire. Cal Fire bases requests for staffing on meeting the National Fire Protection Association standard for a fire engine to be on the scene within four minutes of receiving a call for assistance. For Station 31, additional permanent staff should be provided to meet OSHA's "two in, two out" requirement and maintain the minimum four-minute response time within the Shandon URL. Since all portions of the community, including the detached visitor serving site at West Centre Street and SR 46, will be within two miles of Station 31, four-minute response times should be maintained.

Development impact fees will be collected with new development. Those fees may be used for facilities but not personnel. Funding sources for personnel, in addition to those in the County's General Fund, should be identified. (See Implementation Program FPEIP-3.)

San Luis Obispo Command Center (ECC) handles emergency response and dispatch to Shandon. Ambulance service to the community is provided by a private ambulance company that is stationed in Paso Robles. The nearest hospital is Twin Cities Hospital, approximately 26 miles away in Templeton. Additional hospital service is also available in San Luis Obispo.

6.3.1 Fire Protection and Emergency Medical Services Policies

FPEP-1 Provide adequate levels of service as the population increases.

FPEP-2 Plan an interconnected street system to minimize emergency response times.

FPEP-3 Minimize the risk of personal injury, property damage, and environmental damage from fire, hazardous chemicals releases, natural and human- made disasters through subdivision and development design.

6.3.2 Fire Protection and Emergency Medical Services Implementing Programs

FPEIP-1 Prepare and disseminate information about emergency preparedness specifically for Shandon residents.

FPEIP-2 Coordinate with the community, County Public Health Services, and urgent care providers to establish a health clinic in Shandon.

FPEIP-3 Coordinate with Cal Fire and the community to identify funding for additional fire protection and emergency services personnel.

FPEIP-4 Continue outreach programs by local Cal Fire personnel for fire prevention and safety.

6.4 Law Enforcement

Law enforcement for Shandon is provided by the County Sheriff's North Station in Templeton. The North Station's area of responsibility covers 1,400 square miles, extending from the top of Cuesta Grade to the Monterey County line and from the Los Padres Mountain Range east to the Kern County line. In 2011, the personnel ratio was one deputy for every 1,140 people. Based on information provided by the Sheriff's Office, an adequate level of law enforcement service is approximately one deputy for every 750 people (see Table 6.5). The Sheriff's Office measures levels of service based on its response time to the location of a call. In 2011, the response times to Shandon were longer than desired by the Sheriff's Office; therefore, the Sheriff's Office is evaluating the potential of locating a resident deputy in Shandon.

Table 6.5: Police Personnel Needs

	Population	Required Personnel
2011	1,194	1.59
Buildout	5,260	7.01

Note: Police personnel needs are one deputy per 750 people (County Sheriff's Office).

The California Highway Patrol (CHP) services San Luis Obispo County's highways and County roads. The nearest station is located in Templeton. The CHP is available to respond in emergency situations, but generally does not respond to residential calls.

6.4.1 Law Enforcement Policies

LEP-1 Provide adequate levels of service as the population increases.

LEP-2 Consider community safety and site security in subdivision and development project design.

LEP-3 Where feasible, locate public safety facilities on common or adjacent sites, including sites shared with other public facilities, such as libraries.

6.4.2 Law Enforcement Implementing Programs

LEIP-1 Provide outreach programs by the Sheriff's Department for crime prevention and safety.

LEIP-2 Establish and staff a resident deputy program for Shandon, if feasible. Seek State and Federal funding for the program.

6.5 Solid Waste Disposal

Garbage and recycling pick-up is available through San Miguel Garbage Company. As an option, residents may directly haul their garbage and recyclables to disposal sites.
In 2012, the County had two permitted public landfill facilities that could accept municipal solid waste and recycled materials from the community. The Paso Robles Landfill is located 8.5 miles east of the City of Paso Robles near Highway 46. The Chicago Grade Landfill is located four miles northeast of the City of Atascadero near Highway 41. Table 6-6 summarizes each landfill's capacity and estimated lifespan.

Table 6.6: Solid Waste Disposal Facilities - Project Study Area

Facility Name	Total Estimated Permitted Capacity (Cubic Yards)	Total Estimated Capacity Used (Cubic Yards)	Remaining Estimated Capacity (Cubic Yards)	Percent Capacity Remaining	Estimated Closure Date
Chicago Grade Landfill	3,100,000	1,574,480	1,525,520	49%	1/1/2020
Paso Robles Landfill	6,495,000	1,961,784	4,533,216	70%	1/1/2034

Source: California Integrated Waste Management Board, 2004 (Morro Group, Inc.)

6.5.1 Solid Waste Policies

SWP-1 Ensure that adequate capacity for solid waste is available for community buildout.

SWP-2 Maximize opportunities for waste reduction and recycling.

6.5.2 Solid Waste Implementing Programs

SWIP-1 Continue public education programs about waste reduction, including recycling, yard waste, wood waste, and household hazardous waste.

SWIP-2 Obtain input from the public to ensure that solid waste programs effectively address community needs and issues, and explore whether a centralized collection site would be beneficial.

6.6 Other Community Facilities

Other community facilities include libraries, community centers, health care facilities and government buildings. Shandon has a small, 400-square-foot library located on Centre Street between 2nd and 3rd Streets, a 1,200-square-foot community building located in Crawford W. Clarke Memorial Park, and a larger community hall located at 2nd and Camatti Streets. The community has expressed the need for a health clinic in town,

as well as interest in other recreational facilities such as a rodeo grounds.

Additional library space will be needed to serve the population of Shandon at buildout under this Plan (see Table 6.7). The projected population at buildout would result in a total demand of 3,682 square feet of library space, 21,040 library items, and 0.375 staff (full-time equivalents, or FTE). Additional library space could be provided in a building shared by a new library, health clinic or other governmental offices.

Table 6.7: Existing vs. Needed Library Space

	Library Space (square feet)	Library Items	Staff (FTE)	Population
Existing (2012)	400	4,920	.375	1,194
Buildout	3,682	21,040	.375	5,260

Based on the 2009 *San Luis Obispo City-County Library* ***Vision Report***. 0.7 square feet of library area and four library items are needed per capita. FTE = Full-time equivalency.

6.6.1 Community Facilities Policies

CFP-1 Provide public and cultural facilities that contribute to the community's positive image, enhance community identity, and meet the civic and social needs of the community.

CFP-2 Upgrade/revitalize community facilities to serve the local population in a timely manner relative to the phasing of residential development.

CFP-3 Promote the development of health care facilities and the provision of safe, affordable, and quality elder care and child care facilities and services for families who reside or work in Shandon.

CFP-4 Where feasible, locate community facilities on common sites, including sites shared with public schools.

6.6.2 Community Facilities Implementing Programs

CFIP-1 Support funding for developing youth services programs and supporting facilities.

CFIP-2 Establish incentives for developers to offer land for the development of cultural facilities.

CFIP-3 Coordinate with the community, County Public Health Services, and urgent care providers to establish a health clinic in Shandon.

CFIP-4 Coordinate with the Library Department to identify a site for a new community library facility.

CFIP-5 Explore library fee reductions on items loaned from outside of Shandon.

Chapter 7: Infrastructure and Utilities

The major infrastructure and utilities needed to serve the community are water supply, wastewater, stormwater drainage, and utilities including, natural gas, electricity, and telecommunications. This chapter is meant to provide a broad overview of the distribution, location, extent, and capacity of major infrastructure systems and the facilities that comprise the "backbone" for these systems. Therefore, details for the phasing and construction for each of the major facilities are not included in this Plan. Several unknown factors affect how the phasing is accomplished, including housing demand, changes in the economy, and when and where development will occur first.

The major infrastructure is designed to accommodate an approximate population of 5,260. Each developer will be expected to install a fair share of the needed backbone infrastructure, with additional collector systems and individual connections needed as the community further develops.

Note: Figures 7.1 through 7.4 appear at the end of the chapter. [On-line version: please see separate file named: "Chapter 7 Figures pgs 99-106"

7.1 Water System

The urban water supply for Shandon is provided by County Service Area (CSA) No. 16. The community water system, completed in 1976, included storage facilities, pump stations, transmission lines, chlorination and fire hydrants. Comprehensive water resource information is provided in the San Luis Obispo County Master Water and Sewerage Plan (1972), in the Master Water and Sewerage Plan for County Service Area No. 16 (1971), and in the County Service Area No. 16 Water System Master Plan (2004).

In 2012, the community's water supply was obtained from groundwater wells located in and around the community. The water system consisted of a storage tank (approximately 212,000 gallons), two wells with a flow of 800 gallons per minute (gpm), a 10-inch main from the storage tank to the downtown area, and a distribution network to service the individual parcels. The supply rate of 800 gpm was adequate to serve the 2012 population, but additional supply will be required in order to meet demand at plan buildout. Assuming an average annual demand of 0.5 acre-feet/year/dwelling unit, the estimated total annual consumption at buildout would be approximately 720 acre-feet/year (0.64 million gallons per day (mgd)), compared to the 2012 demand of about 180 acre-feet/year (0.16 mgd). Detailed calculations used to size the water system components are provided for reference in Appendix B. In order to serve the projected population at plan buildout, improvements to the storage facilities and distribution network are needed, including:

- A water supply capable of providing 2,300 gallons per minute (gpm) including the existing wells serving CSA-16.
- Additional storage capacity that, at a minimum, will serve the buildout population of 5,260.
- A backbone system of looped pipelines providing connection points for each proposed development area. Where practicable, the pipelines should be sized to accommodate a greater population to avoid the need to replace undersized lines in the future.
- Connection to the existing CSA-16 water system.

The proposed water system will include a backbone network of looped water mains, as shown on Figure 7.1. Looping the system provides redundancy, consistent water pressures, and increased capacity and conveyance to provide required fire flows. The backbone water infrastructure and connections to the existing water conveyance system may be phased as development occurs. Water main networks within local streets will connect to the backbone network with future development.

Additional storage capacity is needed to provide equalization, meet required fire flow, and provide emergency storage. The storage needs will be met by the placement of additional water tanks at one of two potential sites as shown in Figure 7.1. The maximum required storage would be two, 1.5-million-gallon tanks. Because of elevation difference between the proposed tank(s) and the existing 212,000 gallon tank, and considering the life expectancy of the existing tank, the feasibility and practicality of keeping the existing tank online must be assessed.

The 2004 CSA-16 Water System Master Plan found that the existing water system was adequate to provide water for average daily use, but was "gravely deficient in meeting fire-flow requirements." The proposed water system will resolve some deficiencies and will alleviate many others, but many of the existing pipes must be up-sized as outlined in the Master Plan in order to provide adequate fire protection to all existing development.

CSA 16 holds an allocation for 100 acre-feet per year (AFY) of the State Water Project supply. In order to use this allocation, a turn-out on the State Water Project, which runs north-south along the eastern edge of San Juan Road, would have to be built.

Please refer to Figure 7.1 – Water System Plan and Table 8.3.c that contains a list of required water system improvements, including the State Water turn-out.

7.1.1 Water System Policies

WSP-1 Provide adequate water resources (quantity and quality), storage and delivery system to meet the operation, emergency, and fire prevention needs of the community.

WSP-2 New development shall pay its fair share of the costs for the County to deliver State water in order to offset the impacts of new development on groundwater resources.

7.1.2 Water System Implementing Programs

WSIP-1 Identify and obtain financing for any necessary water system upgrades to serve existing neighborhoods.

WSIP-2 County Service Area 16 should update its Water Master Plan to accommodate development needs under this Community Plan, including expansion of the CSA-16 service area. The update should be funded in part by new development and be consistent with the EIR for the Shandon Community Plan Update and San Juan Village (Fallingstar Phase I) Project mitigation measure W-2(a) [see Appendix D of this Plan]. The Water Master Plan should be updated prior to approval of new development in the Master Plan Areas identified in Chapter 3 of this Plan.

WSIP-3 CSA-16 should develop and implement a fee program that requires new development to pay its fair share of the costs for delivering State water in order to offset the impacts of new development on groundwater resources.

7.2 Wastewater

In 2012, the community was served by individual septic tank and leach field systems for wastewater disposal, with a majority located on small lots. This Plan requires a community wastewater system to be constructed with new development. Existing development, where the land uses are not intensified, may remain on their individual septic systems and will need to be connected to that system only if certain criteria are met. (Section 8.8 specifies these criteria.) The proposed wastewater system improvements consist of a backbone network of gravity sewer pipelines, lift stations, force mains, a waste water treatment facility, and percolation basins.

A preliminary wastewater treatment analysis was performed by the Wallace Group (September 2004), which weighed several wastewater treatment options and locations. Figure 7.2 identifies the preferred location on the west end of the Study Area on the Peck Ranch Master Plan site. A subsequent review was prepared by Carollo Engineers (June 2010) which updated the treatment and disposal analysis based on the expected water quality standards that will be required for the project in order to avoid degradation of groundwater quality. The preferred option is a packaged activated sludge system with nitrogen removal and disposal by percolation basins. The nitrogen removal process will provide an effluent suitable for percolation and will maximize groundwater replenishment.

The components of the wastewater system were sized assuming an average daily demand (ADD) of 80 gallons per day per person. The capacity of the wastewater treatment facility should be large enough to handle the buildout population of 5,260. The backbone components of the wastewater system may be constructed in phases that would serve the corresponding future development and connection of existing development. The subsequent local collection systems would then be connected to the backbone system on a tract-by-tract basis. Where practicable, the below-ground facilities should be sized to accommodate a population of 8,200 or greater to avoid the need to replace undersized facilities in the future. Detailed load and hydraulic calculations are provided for reference in Appendix B.

7.2.1 Wastewater Policies

WWP-1 Plan and construct a wastewater system to meet the needs of the entire community.

WWP-2 The wastewater treatment plant shall be designed with groundwater replenishment as a key component.

WWP-3 Within the parameters of the preferred wastewater treatment option design the plant to minimizes conversion of agricultural land.

7.2.2 Wastewater Implementing Programs

WWIP-1 Identify and obtain financing to extend the wastewater system to existing neighborhoods.

WWIP-2 Prepare educational materials regarding water softeners and household or commercial practices that could be detrimental to the wastewater system or harmful to groundwater quality.

WWIP- 3 Evaluate the use of solar power to operate the wastewater treatment plant.

7.3 Stormwater

Three major water courses flow through Shandon. Cholame Creek flows from the east and San Juan Creek flows from the south, converging to form the Estrella River that flows to the west. Runoff within the community generally "sheet-flows" to the north without clearly defined natural channels to the water courses. The community does not have a storm drain system, and runoff is handled primarily by roadside swales and culverts. The only streets with curbs and gutters are Calle Carmelita and Calle Arroyo. In some areas, the existing swales and culverts are inadequate to handle runoff from even moderate storm events, resulting in some localized shallow flooding (less than 2'). The lack of curbs and gutters, along with level ground, also causes minor flooding on many of the existing streets during moderate storm events. Minor flooding problems have been reported in many areas, most notably near the Cal Fire station on Centre Street, on the heights, North Second at Camatti Street, at the intersections of First Street at Centre and Cholame Streets, in front of the High School, and at the intersection of Toby Way and Centre Street.

The topography of the watershed affecting the Plan Area has moderate relief with slopes generally less than 10% with the exception of the hills to the east of San Juan Road. The majority of the existing and proposed development is located on terrain with slopes less than 2%. With the exception of the existing downtown, the watershed is lightly developed or used for agriculture.

A comprehensive stormwater plan is necessary to alleviate minor flooding problems and to facilitate future development within the URL. Major backbone facilities, that will outfall to the creeks or river, have been identified and sized as shown on the Storm Water System Plan (see Figure 7.3). These backbone facilities have been sized to convey the 50-year runoff from existing and future development. The backbone facilities will be built in phases as future development progresses and the supporting facilities such as curbs and gutters, drain inlets, storm drain pipes, ditches, bio-swales, and basins will be integrated to the back bone system for each individual development. Groundwater recharge should be a priority in designing stormwater and drainage systems.

7.3.1 Stormwater Drainage Policies

SDP-1 Provide comprehensive stormwater management to minimize flooding and property damage throughout the community.

SDP-2 Design and construct a stormwater system that minimizes impacts to surface and groundwater quality and helps maintain the river and creeks in a natural state.

SDP-3 Require the use of suitable low impact development techniques and best management practices in site design and development.

SDP-4 Groundwater recharge shall be a priority in stormwater and drainage system design.

7.3.2 Stormwater Drainage Implementing Programs

SDIP-1 Develop a communitywide Stormwater System Plan, consistent with Figure 7.3 that includes but is not limited to the following: identification of safe overland relief, as a precaution should storm drain systems fail; maximum recharge capabilities; and provisions to handle localized ponding throughout all neighborhoods.

SDIP-2 Identify and obtain financing to improve drainage systems throughout the community.

7.4 Flood Management

Cholame and San Juan Creeks drain a very large area and merge north of the downtown area to form the Estrella River. Both the Cholame and San Juan Creeks have similar characteristics. Upstream from the Estrella River, both water courses have vertical slope banks with sandy bottoms and minor vegetation along the main channels. Near the Estrella River, the characteristics change slightly to wider main channels with more vegetation, including trees and more gently-sloped banks.

According to the 2008 Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM), Shandon is a "Zone A" designation. Zone A is defined by FEMA as "Areas of 100-year flood; base flood elevations and flood hazard factors not determined". Figure 7.4 shows the 100-year water surface elevation. Construction within the 100-year flood boundary should be avoided. Where construction within the 100-year flood boundary cannot be avoided, projects should be designed such that finish floor elevations are one foot above the flood level.

7.4.1 Flood Management Policy

FMP-1 Develop in a manner that minimizes risks to life and property associated with flooding.

7.4.2 Flood Management Implementing Programs

FMIP-1 Process a "Letter of Map Amendment" with FEMA to incorporate the updated flood study (100-year flood elevations) into the Flood Insurance Rate Map.

7.5 Utilities

7.5.1 Gas and Electric

Pacific Gas and Electric (PG&E) provides energy utilities to Shandon, with electric services provided by overhead lines. Gas and electrical requirements will increase as the community develops, and expansion of distribution and transmission lines and related facilities will be necessary to meet this increased demand. PG&E will need to make on-site and off-site improvements to the facilities supplying gas and electric services as development occurs. The range of system improvements may include upgrading existing substations and transmission line equipment, expanding existing substations, interconnecting and undergrounding transmission lines.

7.5.2 Telecommunications

AT&T is the primary telecommunications provider for the community. Shandon is served by fiber optic cable, which can accommodate the projected growth of the community.

7.5.3 Cable Television

In 2012, cable facilities were not available within the community. Charter Communications is the nearest provider for cable services. As of 2011, there were no plans to service this area.

7.5.4 Easements

Oil and gas pipelines lie within two easements that extend through the community. There is a 6-inch natural gas line (inactive) and two active 8-inch gas/oil transmission lines. Encroachments into these pipeline easements are regulated by the California Pipeline Safety Act of 1981 which states that:

"Construction improvements, including excessive fill, and the planting of dense landscaping over the pipeline easement are prohibited."

The Safety Act also prohibits the construction or placement of structures within the pipeline easements which would impair access for maintenance or visual inspection of the pipeline. Roadways and limited surface parking may be conditionally allowed. Pipeline easements also provide an opportunity to provide community-wide easements for uses such as Class I bike/pedestrian trails.

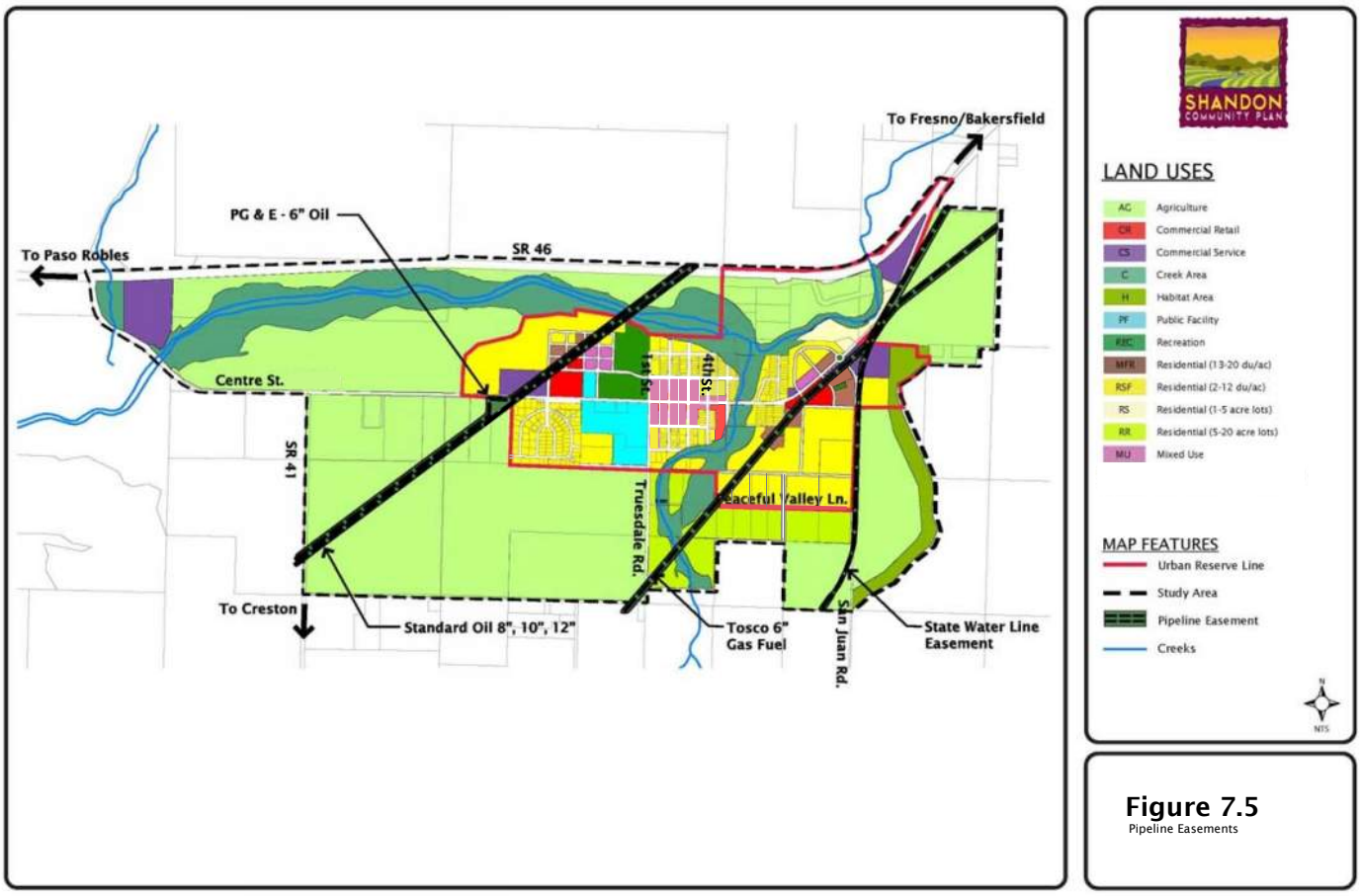


Figure 7.5
Pipeline Easements

7.5.5 Utilities Policies

UP-1 Coordinate with utility companies to provide the community with a full array of reliable utility services.

UP-2 Encourage the use of renewable energy sources, such as individual solar energy systems in development projects and the retrofitting of existing uses throughout the community.

7.5.6 Utilities Implementing Programs

UIP-1 Identify communitywide programs to reduce energy costs.

UIP-2 Coordinate with utility companies to underground existing major utility lines.

UIP-3 Work with the community to pursue a communitywide solar energy system.

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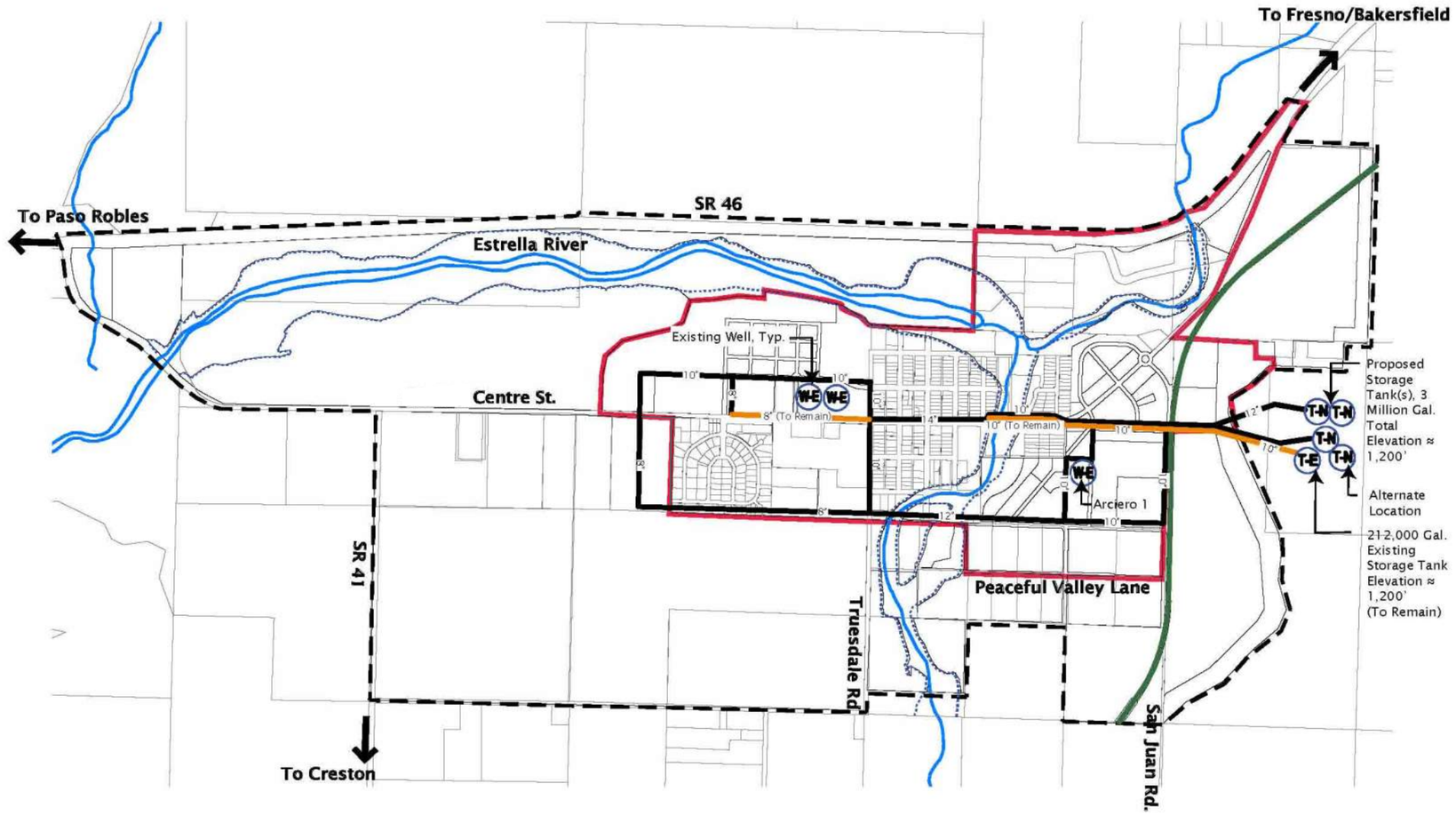

Notes:
1. The proposed water system was sized to accommodate an estimated population of 8,200 but shall be required, at a minimum, to meet plan buildout population and provide adequate fire flows, emergency and equalization storage. Where practicable, the pipelines should be sized to accommodate a greater population to avoid the need to replace undersized lines in the future.
2. An additional 3.0 million gallons of storage is needed to provide adequate fire flows, emergency and equalization storage.
3. Pipes were sized to maintain 30 psi during peak hour demand and a minimum 20 psi for maximum daily demand plus fire flow for the entire system at an assumed water elevation of 1200' in all tanks.
4. All proposed pipe sizes are estimates only. Existing deficient water lines still require upgrading to provide adequate flows to localized areas as identified in the 2004 CSA-16 Water System Master Plan.

SHANDON COMMUNITY PLAN

LEGEND

- New Water Line
- Existing Water Line
- Study Area
- 100-Year Flood Boundary
- Urban Reserve Line
- State Water Line Easement
- Creeks
- T-N Proposed Tank
- T-E Existing Tank
- W-E Existing Well

N
NTS

Figure 7.1
Water System Plan

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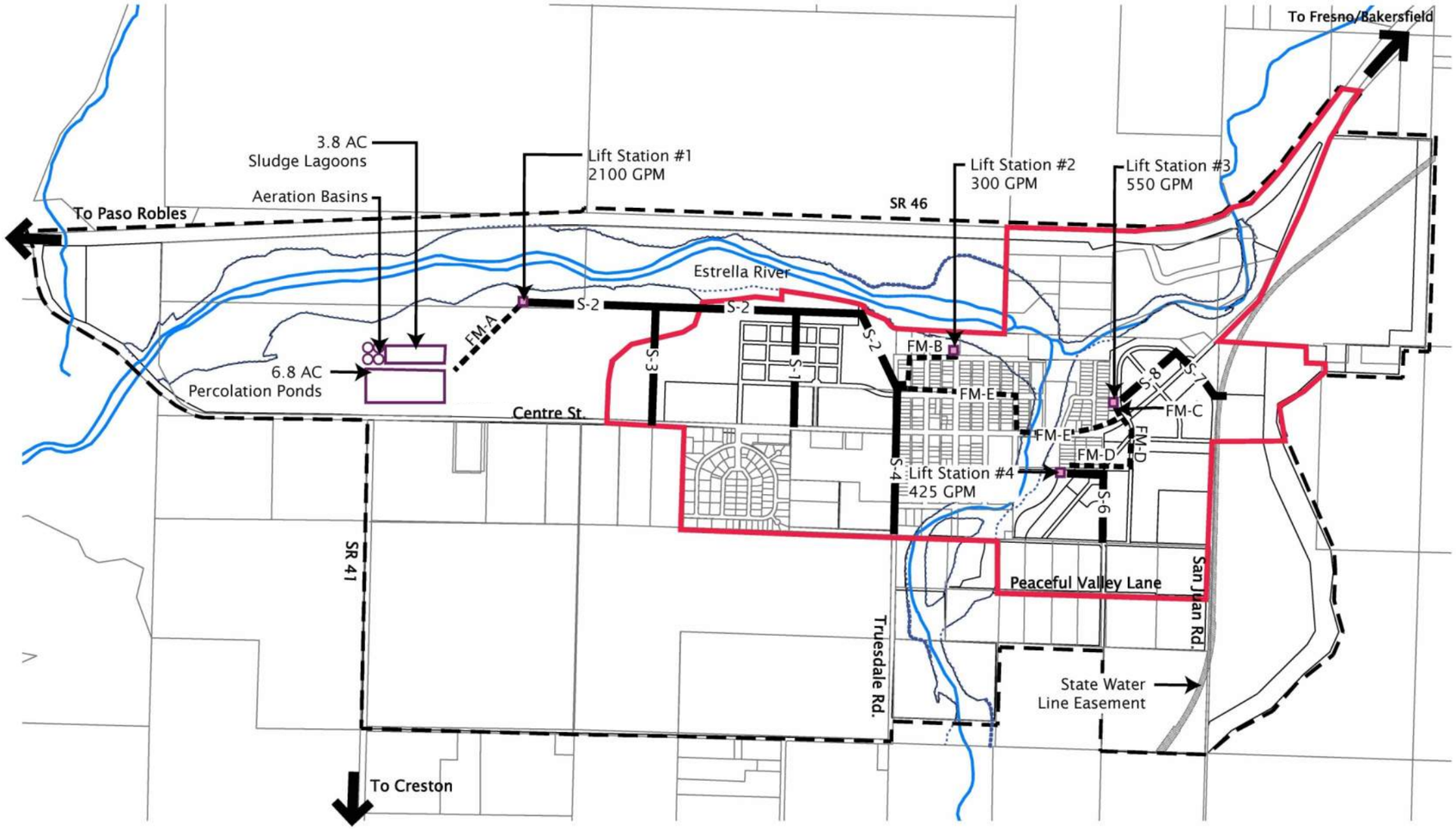

LEGEND

- Gravity Sewer
- Force Main Sewer
- Study Area
- 100-Year Flood Boundary
- Urban Reserve Line
- Creeks
- Lift Station

Sewer Label	Size
S-1	8"
S-2	15"
S-3	8"
S-4	8"
S-6	8"
S-7	8"
S-8	10"

FM Label	Contributing Lift Station(s)	Size
FM-A	#1	10"
FM-B	#2	6"
FM-C	#3	6"
FM-D	#4	6"
FM-E	#3 & #4	8"

N

NTS

Notes:

1. All sewer facilities (pipes, lift stations, WWTP ponds) were sized to accommodate an estimated population of 8,200 but shall be required, at a minimum, to meet plan buildout population for the following demand levels:
   a. Average Daily Demand (ADD) = 80 gallons per day/person (0.056 GPM)
   b. Peak Daily Demand (PDD) = 160 gpd/person (0.125 GPM)
   c. Peak Hourly Demand (PHD) = 320 gpd/person (0.25 GPM)
   d. WWTP ponds were sized for ADD.
   e. Gravity pipes were sized to flow half full for PDD assuming N = 0.012 (PVC) and slope = 0.5%.
   f. Lift stations were sized for PHD.
   g. Force mains were sized for PDD assuming N = 0.012 (PVC), an operating pressure of 50 PSI and 30' of list.
2. All sewer facilities were sized using assumed population densities, development locations and probable slopes, and are estimates only.
3. Where practicable, the pipelines should be sized to accommodate a greater population to avoid the need to replace undersized lines in the future.

Figure 7.2
Waste Water System Plan

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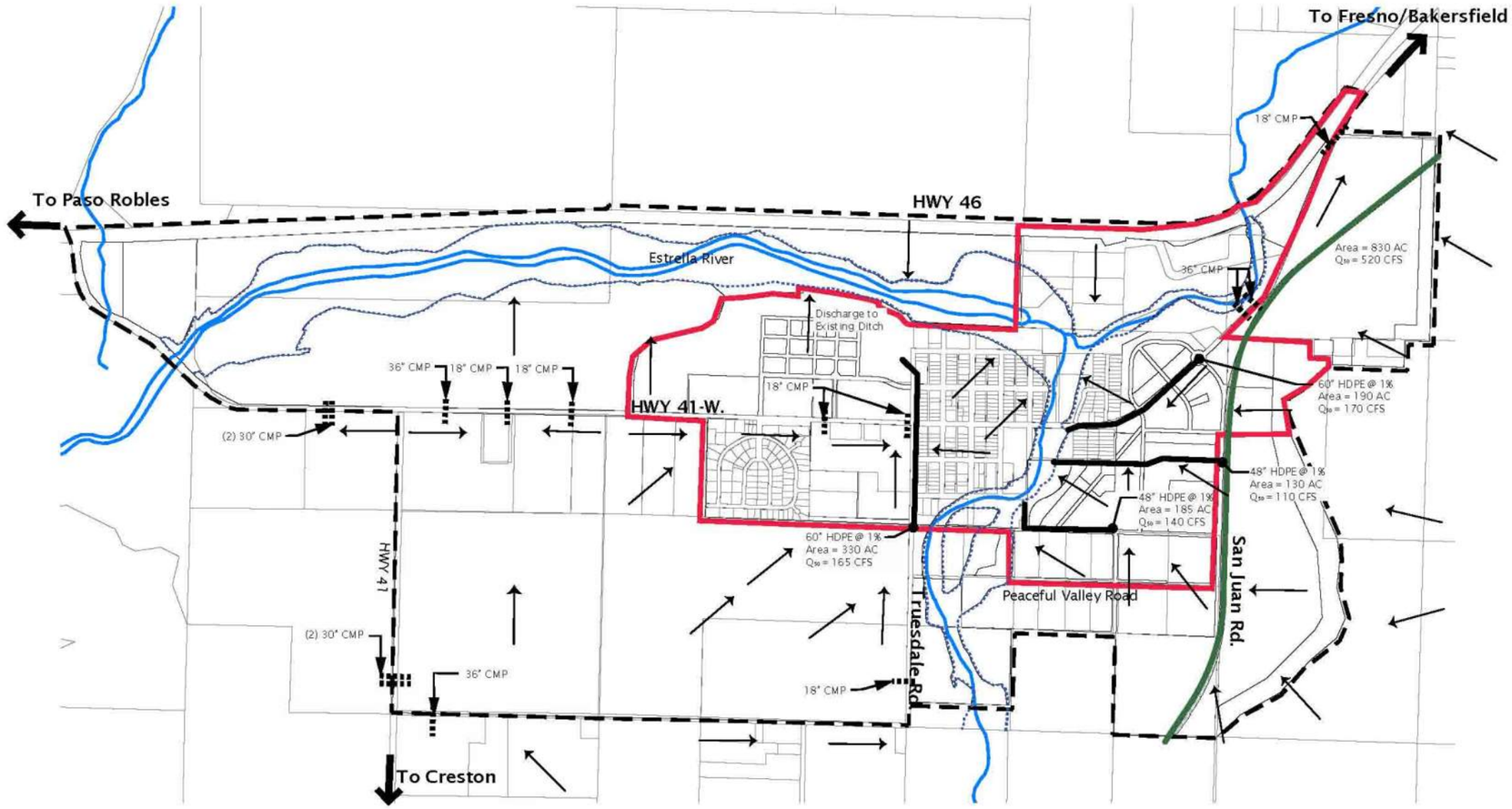

Notes:
1. All pipeline sizes based on 1.0% slope and flowing full. Pipeline sizes are preliminary and may be reduced depending on final design.
2. Runoff (Q_{50}) calculated using 50 year storm and rational method.

SHANDON COMMUNITY PLAN

LEGEND

- Proposed Storm Drain
- Existing Culvert
- Direction of Flow
- Study Area
- 100-Year Flood Boundary
- Urban Reserve Line
- State Water Line Easement
- Creeks

N
NTS

Figure 7.3
Storm Water System Plan

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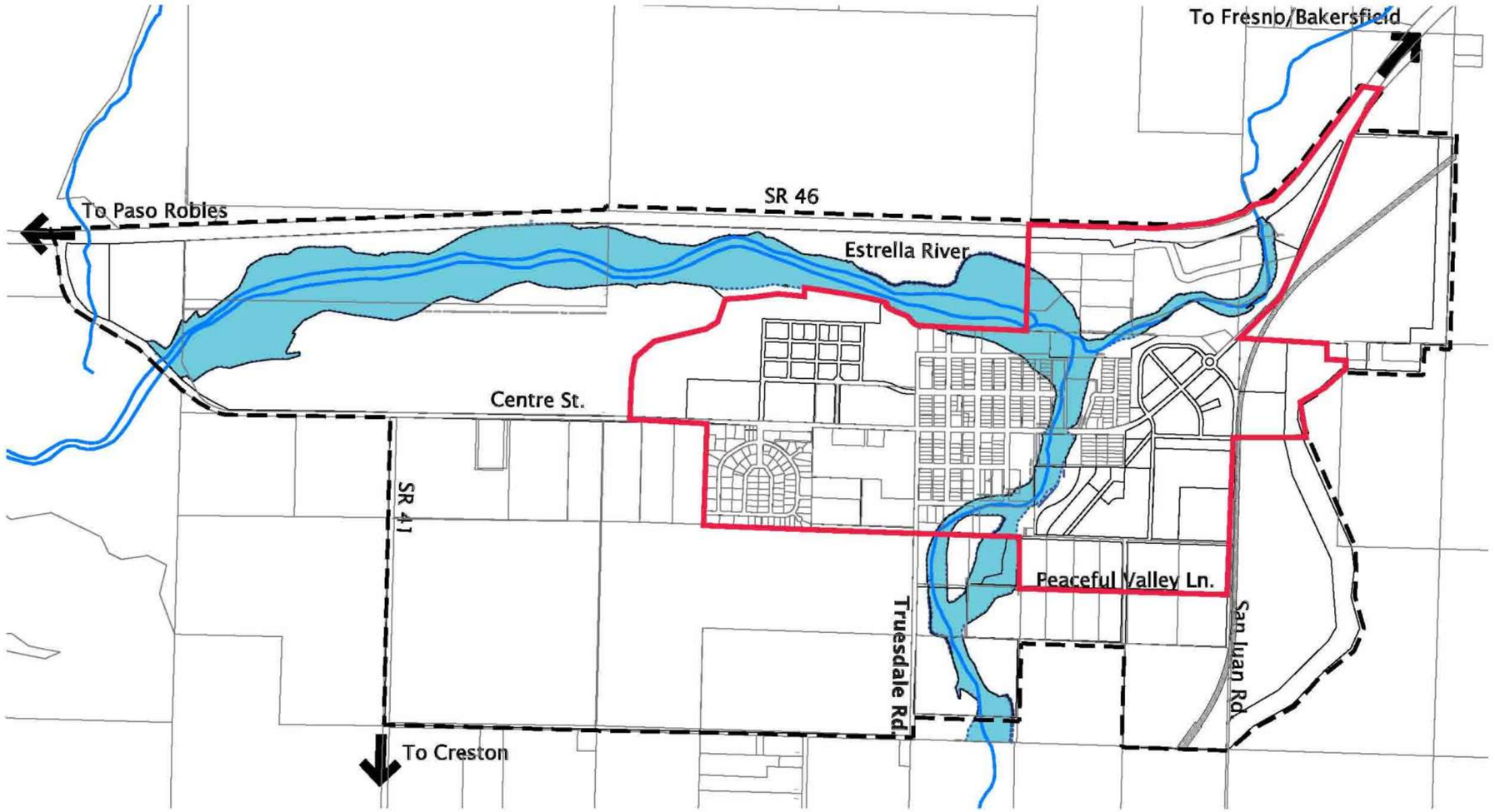

SHANDON COMMUNITY PLAN

LEGEND

- Urban Reserve Line
- Study Area
- Proposed 100-Year Flood Boundary
- Creeks

N

NTS

Figure 7.4

Flood Plain Limits Plan

Chapter 8: Public Facilities Financing Plan

8.1 Executive Summary

What is the purpose of the PFFP?

The Public Facilities Financing Plan (PFFP) evaluates the ability of the expected development in Shandon to fund public facilities that would be needed to support the community as it grows over the next 25 years and beyond according to the Shandon Community Plan. It also provides guidance to property owners, developers, and public agencies regarding the most suitable method to fund each public facility component and the timing for initiating actions to implement those funding methods.

What is included in the PFFP?

The PFFP Identifies the total costs of the key public facilities that would be needed to support the community through plan buildout. In addition, the PFFP distributes those costs by type of use and by Master Plan Area or community group, according to one's "fair share" of the costs. The PFFP also evaluates a number of strategies to finance the costs of the needed public facilities.

The public facilities analyzed by this PFFP consist of:

- Circulation: road, highway and related improvements
- A new sewer system
- Water system improvements
- Storm drainage facilities

How will the needed public facilities be paid for?

The total cost (in 2010 dollars) of the needed public facilities would be about $54 million. About 59% of that cost would be for road, highway and related improvements.

In general, the strategy for funding needed facilities is for new development to pay for certain facilities up-front as a condition of the project's approval. In some cases, the developer would actually construct the infrastructure item. In other cases, the developer would pay impact fees based on the project's actual fair share of the costs. In other words, the fees would depend on how much effect the development would have on the needed facilities. For example, development that results in a greater need for sewer services would pay a greater share of the costs for needed sewer system improvements.

Since a portion of the up-front costs for needed facilities would be greater than the developers' actual fair share, those developers would need to be reimbursed for that portion of their costs. The reimbursement would come from subsequent development that would benefit from the new facilities. The PFFP also assumes that a significant portion of the initial costs of building the public facilities would be financed by a Community Facilities District (CFD), a special financing district that would issue bonds. Development impact fees could then be used to pay the bond debt or reimburse the original developers. Alternatively, development impact fees might be waived for properties within a CFD as long as the CFD special tax remains in place to make annual payments on the bonds.

The amount that someone would need to pay to fund the needed public facilities would vary, depending on the situation and the Master Plan Area or community group within which the property is located. For example:

1. **If you own a home (in 2012):**
   a. You may be able to use your septic system indefinitely and only contribute to sewer costs if and when you connect to the community sewer system.
   b. You would not contribute directly for circulation improvements, unless a special tax was passed by the voters.
   c. You could benefit from cost-savings for currently-needed water system improvements.

2. **If you make additions to or remodel an existing home**:
   a. If the remodel does not increase density or generate additional wastewater, then the costs would be the same as number 1 above.
   b. If the remodel does increase density or generate additional wastewater, then fees would be charged for the additional use.

3. **If you own existing vacant property:**
   a. If it is a single lot, then you would pay development impact fees at the time you obtain a building permit.
   b. If you subdivide a residential or commercial property or develop a commercial project, then you would pay impact fees up-front before selling lots or constructing the project.

4. **If you buy a home in a new subdivision approved under the Shandon Community Plan Update**, then your fair share was paid for up-front. However, those costs could be reflected in the home price or in a special assessment on your property tax bill.

What costs for needed public facilities cannot be fully covered by new development, and how would those costs be paid for?

One of the challenges in paying for Shandon's needed public facilities is that approximately 24 million of the 54 million dollar total cost (about 44%) cannot be charged to new development (through development impact fees, for example). This share of the costs is a gap that will need to be funded by other means. The funding gap results from two factors. First of all, there are *existing* needs for highway and road improvements, such as the intersection of West Centre Street and SR 46. Second, much of the future traffic that will contribute to these needs does not result from new development in Shandon. In other words, that is traffic on SR 46 that does not come from or go to Shandon. These costs cannot be paid for by new development.

Although this chapter outlines several funding methods, it has not yet been determined how to pay over time for the 24 million dollar-share of Shandon's needed public facilities. Some examples of financing strategies that could be used in Shandon are forming a redevelopment agency, issuing revenue bonds, and obtaining grant funding. Funding all of the needed public facilities would allow future development to move ahead in Shandon. As a result of this PFFP, a Capital Improvement Plan will be prepared that will provide greater detail about the costs and funding options for each infrastructure component and how it will be phased with the development identified in the Shandon Community Plan.

8.2 Introduction

This chapter evaluates the ability of the anticipated land uses in the Shandon urban area to fund key public facilities that would be necessary to accommodate development as envisioned in the Community Plan. This chapter also identifies--but does not analyze--additional public facilities that could potentially be funded in a manner similar to the key public facilities.

This chapter summarizes a detailed financial and funding analysis, performed by The Natelson Dale Group, Inc. (TNDG). Their analysis included:

- Identification of the necessary key public facilities that will be required to serve Shandon as it approaches buildout, based on the range of land uses described in Chapter;

- Probable costs for the key public facilities in the following categories (please refer to Tables 8.3 a, b, c and d for a complete list of these items):

    - Circulation,
    - Water,
    - Wastewater, and
    - Drainage;

- An allocation of costs by land use and for the following Master Plan Areas (see Figure 3.2) or community group:

    - Fallingstar,
    - Halpin,
    - Peck Ranch,
    - Existing Town (the existing developed areas of Shandon in 2012), and
    - Other new Development (new developable areas other than Fallingstar, Halpin or Peck Ranch) and vacant lots;

- Evaluation of a potential financing strategy whereby the up-front costs of needed public facilities would be funded by initial development and later be reimbursed by subsequent development that would utilize the new public facilities;

- A determination of potential funding "gaps".

I am an existing property owner. How does this affect me?
It depends if your property is built upon, vacant or to be redeveloped. If built upon (or to be redeveloped), please refer to Section 8.8. If vacant, please refer to Section 8.9.

Key public facilities needed up front

- Improvements to State Route 46 and West Centre Street
- Pedestrian bridge over San Juan Creek
- New water tank
- First phase of a sewer system

As described in Chapters 5 and 7 of the Shandon Community Plan or as identified in the Shandon Community Plan Update EIR, several public facility items are needed up-front with initial development. These items include: improvements to the intersection of State Route 46 and West Centre Street, a pedestrian bridge over San Juan Creek, a new water tank, water lines, and the first phase of a wastewater treatment system. Therefore, the analysis considered a funding approach in which the costs of the "up-front" public facility improvements would initially be borne by the developers of the first projects, which could be a Master Plan Area or a combination of various development projects. Since the cost of these improvements would exceed the initial developments' "fair share," the initial developer would then be reimbursed for the portion of the public facilities cost that was over and above their "fair share."

A significant challenge related to this funding arrangement is that a large portion of Shandon's public facility needs are attributed to two sources that cannot easily be "charged" (via impact fees, etc.) for their fair share of the facility costs: (a) public facility deficiencies existing prior to adoption of the Community Plan, and (b) regional traffic impacts not specifically generated by the Shandon Community Plan. As such, there will be gaps between the amount of funding that can be collected from new development and the total cost of the needed public facilities. Although the analysis calculated the potential magnitude of these gaps, it was beyond the scope of the study to determine each of the specific methods that will be used to meet the various funding needs. However, prior to approval of major development, a Capital Improvement Plan must be prepared and any supplemental funding sources must be identified at that time. Section 8.7 describes, in general terms, a range of funding methods that could be applied.

The analysis estimates the following costs:

- ***The total costs that developers would be obligated to pay in order for development to proceed.*** These costs are referred to as ***"obligated costs"*** and represent the up-front funding that the project developers would be required to pay (several options for financing these payments are described in Section 8.7).

- ***The total costs associated with each Master Plan Area or community group.*** These costs are referred to as ***"associated costs"*** and are each group's fair share for the cost of the public facilities based on their impact to the public facilities.

- ***The associated costs per unit within each Master Plan Areas or community group.*** Each group's fair share is illustrated per development unit, which also represent potential impact fees.

- ***Reimbursement.*** Money to be paid back to the developers who initially paid more (obligated costs) than their fair shares (associated costs) of public facility costs.

- ***The funding gaps***. There are funding gaps inherent in a reimbursement-based financing arrangement. These funds must be produced from sources other than an impact fee program. See Section 8.6.

- ***Potential cost to existing development***. Costs for a portion of the existing community's fair share that may be collected directly from owners of property that was developed prior to the adoption of the Shandon Community Plan. See Section 8.8.

Although the preceding kinds of costs were structured to illustrate actual dollar amounts, they do not necessarily reflect the implications of long-term financing. In order to evaluate the capability to debt-finance needed facilities, Community Facilities District (CFD) bonding scenarios are illustrated in Section 8.7. The intent of the scenarios is to evaluate the extent to which the likely level of necessary debt could be serviced by a CFD property tax assessment, given the County's adopted policy on CFD financing.

Because the analysis focused on total costs associated with buildout of the Community Plan Area, it therefore did not reflect year-by-year impacts associated with the potential phasing of future development. Buildout was defined as the level of development anticipated 25-years after development commences

Notes on Data Sources

The calculations summarized in the financial and funding analysis and in this chapter are based on a detailed financing model developed by TNDG. The model was provided to the County of San Luis Obispo electronically (in Microsoft Excel). The model relied on various data and assumptions supplied to TNDG by the County of San Luis Obispo, including:

- Assumed land uses for the analysis for each Master Plan Area or community group;
- Itemized list of key public facility improvement items required in Shandon. Please refer to Section 8.4; the corresponding plans for water, wastewater, and drainage systems; (Figures 7.1 through 7.3) and the December 23, 2010 Technical Memorandum prepared by Wood Rogers for circulation items (Appendix E);
- Itemized opinions of probable costs estimated for the key public facility items. Please refer to Section 8.4 *[Note: Opinions of probable costs are preliminary, approximate, and are meant to give the reader a general idea of the costs. A detailed Capital Improvement Plan must be prepared to determine actual costs and finalize an impact fee program.]*;
- The obligated costs; and
- Each Master Plan Area or community group's fair-share impact costs (or "associated costs").

8.3 Land Use Assumptions

The land uses assumed in the financial and funding analysis are shown in Table 8.1. The commercial land uses have been generalized into three basic categories: retail, office and industrial; the categories are not intended to be exclusive. Civic and assembly uses may be considered part of the office category. The industrial category includes service uses as well as light industrial uses, and the retail category includes a wide range of businesses.

Table 8.1: Land Use Assumptions

	Fallingstar	Halpin	Peck Ranch	Other New Development
New Residential Units				
Res. Suburban				14
Res. Single Family	263	13	300	156
Res. Multi-Family	106		82	66
Res. in Mixed Use	21		40	
Total New Residential*	390	13	422	236
Existing Residences* = 351				
Non-Residential Floor Area (1,000 square feet)				
Retail	12.5	0	64.3 (20.0)**	54.6
Office	10.9	9.6	54.9	6.0
Industrial	6.6	44.0	44.8 (3.7)**	8.8
Total Non-Res. Floor Area	30.0	53.6	164.0 (23.7)**	69.4

* Does not include residential units in the Agriculture Land Use Category.
** (23.7) represents the assumed land uses on the detached portion of the Peck Ranch.

Although Table 3.1 shows 359 existing residences and 1,078 potential new units in the Urban Reserve Line, the eight existing and 17 potential units in the Agriculture land use category will not contribute to the wastewater, water and drainage systems. Those units will contribute impacts to the circulation system only. Likewise, the detached commercial service site on the Peck Ranch Master Plan site at West Centre Street and SR 46 will not contribute to the wastewater, water and drainage systems, but will contribute to the need for circulation improvements.

8.4 Public Facility Costs

The total cost of required public facilities in the Plan area is projected at $54.2 million (in 2011 dollars). The breakdown of this total by major facility category is as follows:

Table 8.2: Total Cost

Facility Category	Total Cost
Circulation	$32,031,825
Water	$ 7,141,000
Wastewater	$13,734,000
Drainage	$ 1,273,000
	$54,179,825

The following tables (Tables 8.3.a, b, c and d) identify each of the required public facility items for the four major facility categories, the opinions of their probable cost, and what entity is obligated to pay for these items up-front. Items A-2 and A-6 are for a grade-separated interchange at West Centre Street and SR 46. This interchange is not a required mitigation measure for Community Plan buildout. However, the estimates of circulation impact fees in Section 8.5 include the West Centre Street/SR 46 interchange in order to begin funding the long-term need for grade separation in a timely manner and allow a traffic signal (item A-4) as an interim solution.

Note: In the following tables, "First Developer(s)" means the first project or combination of projects that will prompt, under the provisions of the Shandon Community Planning Standards found in Sections 22.110.040 and 22.110.060 of the Land Use Ordinance, development of the listed public facility items. The "First Developer(s)" could be one or more of the Master Plan Areas or a combination of Master Plan Areas and other new development. "Other Entity" is identified as the obligated payer for required improvements for which no individual developer or developers are obligated to construct. The State of California is identified as the obligated payer for the widening of SR 46. In some tables, "Subsequent Developer(s)" is identified as an obligated payer for certain public facilities that would be needed after the first developments. In some cases, a project developer would be obligated to pay for a certain improvement, depending on the project's location (for example: east or west of San Juan Creek).

Table 8.3.a: Opinion of Probable Costs for Circulation Items (see Appendix E)

	Circulation Improvements	Opinion of Probable Cost	Obligated Payer[1]
	West Centre Street / SR46		
A-1	Construct a north-to-west left-turn lane	$106,714	First Developer(s)
A-2	Grade-separated interchange[2]	$16,945,500	Other Entity
A-3	Widen SR 46 (from Whitley Gardens to east of West Centre St.)[3]	—	State of California
A-4	Install a traffic signal[4]	$320,000	Other Entity
A-5	Intersection modifications (dual northbound left-turns, a single shared northbound/right turn lane, and southbound left turn)	$471,438	Other Entity
A-6	Dedicate right-of-way for a future grade-separated interchange[2]	$5,000,000	Other Entity
	East Centre Street / SR46		
A-7	Construct a north-to-west left-turn lane	$208,828	First Developer(s)
A-8	Widen SR 46[5] (from east of Centre St. to the rest area)	—	State of California
A-9	Install a traffic signal[6]	$240,000	Other Entity
A-10	Construct a northbound right turn lane	$401,766	Other Entity
	Centre Street		
A-11	Construct a Two-way left turn lane between First Street and Toby Way	$6,287,973	Other Entity
A-12	Construction of San Juan pedestrian bridge	$1,512,000	First Developer(s)
A-13	Install a traffic signal at SR 41	$537,606	Other Entity
	Total of all items	$32,031,825	

Source: Opinion of Probable Cost by Wood Rodgers, Inc., Technical Memorandum, December 23, 2010 and recommendations by the County Department of Public Works.

1) "First Developer(s)" could be one or more of the Master Plan Areas or a combination of Master Plan Areas and other new development. "Other Entity" is identified as the obligated payer for required improvements for which no individual developer or developers are obligated to construct.
2) Items A-2 and A-6 are not required mitigation measures for Community Plan buildout, however, traffic from new development will contribute to the ultimate need for an interchange. Therefore, Transportation Impact Fees will be collected from new development for these items.
3) Item A-3 is a State project that is funded with construction to commence in August 2012.
4) Item A-4 is an interim measure that would ultimately be replaced by Item A-2. Caltrans may authorize an alternative improvement to a traffic signal.
5) Item A-8 is a State project with funding pending. Construction would commence after Item A-3.
6) Item A-9 is a mitigation measure needed at Community Plan buildout. Caltrans may authorize an alternative improvement to a traffic signal.

Table 8.3.b: Opinion of Probable Costs for Water System Items (See Figure 7.1 - Water System Plan)

	Water System Improvements	Opinion of Probable Cost	Obligated Payer[1]
For Initial Development(s)			
B-1	Construction of storage tank (1.5 MGD)	$1,800,000	First Developer(s)
B-2	Tank land costs	$20,000	First Developer(s)
B-3	Tank access road improvements	$115,000	First Developer(s)
B-4	12" main from storage tank to the junction with 10" mains near Toby Way and 8th St.	$426,000	First Developer(s)
B-5	If needed, construct additional public well[2]	$350,000	First Developer(s)
Items B-1 through B-5 plus any of Items B-6 through B-10 that are necessary for development			
B-6	10" mains east of San Juan Creek	$354,000	First Developer(s) east of San Juan Creek
B-7	8" mains west of 1st St. (Truesdale Rd.)	$293,000	First Developer(s) west of San Juan Creek
B-8a	10" main in Centre St. between the 12" main and the14" main	$625,000 (total for B-8)	First Developer(s) west of San Juan Creek
B-8b	10" main in 1st St. (Truesdale Rd.);		First Developer(s) west of San Juan Creek
B-8c	10" mains through the Peck Ranch Master Plan site		First Developer(s) west of San Juan Creek
B-9	12" main crossing San Juan Creek	$210,000	First Developer(s) west of San Juan Creek
B-10	14" main in Centre St.	$300,000	First Developer(s) west of San Juan Creek
For Subsequent Development(s) when the capacity of Items B-1 and B-5 will be exceeded			
B-11	Construct additional storage tank (1.5 MGD)	$1,800,000	Subsequent Developer(s)
B-12	Construct additional public well[2]	$350,000	Subsequent Developer(s)
Items B-11 and B-12 plus any of Items B-6 through B-10 that are necessary for development			
System-wide Improvements			
B-13	Acquire easements to make system upgrades	$28,000	Other Entity
B-14	Update CSA-16 Master Water Plan	$25,000	Other Entity
B-15	Improvements to deliver State Water	$445,000	Other Entity
	Total of all items	$7,141,000	

Source: Opinion of Probable Cost provided by the County of San Luis Obispo in consultation with North Coast Engineering, Inc.

1) "First Developer(s)" could be one or more of the Master Plan Areas or a combination of Master Plan Areas and other new development. "Other Entity" is identified as the obligated payer for required improvements for which no individual developer or developers are obligated to construct. *"Subsequent Developer(s)" is identified as an obligated payer for certain public facilities that would be needed after the first developments.*
2) Construction of a public well is contingent on the developer(s) off-setting new water use consistent with Natural Resource Policy NRP-8 and applicable conditions of approval for the project's land use or land division approval.

Table 8.3.c: Opinion of Probable Costs for Wastewater System Items, (See Figure 7.2 - Wastewater System Plan)			
	Wastewater Improvements	**Opinion of Probable Cost**	**Obligated Payer[1]**
For Initial Development(s)			
C-1	First phase of a treatment plant	$2,985,000	First Developer(s)
C-2	Force main - FM-A	$77,000	First Developer(s)
C-3	Lift station #1	$ 300,000	First Developer(s)
C-4	Sewer main #2	$651,000	First Developer(s)
Items C-1 through C-4 plus any of Items C-5 through C-14 that are necessary for development			
C-5	Force main – FM-E	$291,000	First Developer(s) east of San Juan Creek
C-6	Force main – FM-C	$13,000	First Developer(s) east of San Juan Creek
C-7	Lift station #3	$300,000	First Developer(s) east of San Juan Creek
C-8	Force main – FM-D	$84,000	First Developer(s) east of San Juan Creek
C-9	Lift station #4	$300,000	First Developer(s) east of San Juan Creek
C-10	Sewer main #6	$92,000	First Developer(s) east of San Juan Creek
C-11	Sewer main #7	$63,000	First Developer(s) east of San Juan Creek
C-12	Sewer main #8	$90,000	First Developer(s) east of San Juan Creek
C-13	Sewer main #1	$102,000	First Developer(s) west of San Juan Creek
C-14	Sewer main #3	$102,000	First Developer(s) west of San Juan Creek
For Subsequent Development when the capacity of Item C-1 will be exceeded			
C-15	Second phase of a treatment plant	$3,006,000	Subsequent Developer(s)
Item C-15 plus any of Items C-5 through C-14 that are necessary for development			
Improvements for Existing Development			
C-16	Sewer main #4	$600,000	Other Entity
C-17	Force main – FM-B	$250,000	Other Entity
C-18	Lift station #2	$300,000	Other Entity
C-19	Install collector systems within existing ROW to serve existing neighborhoods	$4,128,000	Other Entity
	Total of all items	$13,734,000	

Source: Opinion of Probable Cost provided by the County of San Luis Obispo in consultation with North Coast Engineering, Inc.

1) "First Developer(s)" could be one or more of the Master Plan Areas or a combination of Master Plan Areas and other new development. "Subsequent Developer(s)" is identified as an obligated payer for certain public facilities that would be needed after the first developments. "Other Entity" is identified as the obligated payer for required improvements for which no individual developer or developers are obligated to construct.

Table 8.3.d: Opinion of Probable Costs for Storm Water System Items (See Figure 7.5 – Storm Water System Plan)			
	Drainage Improvements	**Opinion of Probable Cost**	**Obligated Payer**[1]
D-1	Install a 60" storm drain along Centre Street from San Juan Road to San Juan Creek	$387,000	First Developer(s) to require this item
D-2	Install a 48" storm drain 450' south of Toby Way from San Juan Road to San Juan Creek	$442,000	First Developer(s) to require this item
D-3	Install a 48" storm drain from 8th Street to San Juan Creek	$344,000	First Developer(s) to require this item
D-4	Prepare a master drainage plan for the community	$100,000	Other Entity
	Total of all items	$1,273,000	

Source: Opinion of Probable Cost provided by the County of San Luis Obispo in consultation with North Coast Engineering, Inc.

1) "First Developer(s)" could be one or more of the Master Plan Areas or a combination of Master Plan Areas and other new development.` "Other Entity" is identified as the obligated payer for required improvements for which no individual developer or developers are obligated to construct.

8.5 Funding Strategy

The strategy for funding the key public facilities for the Shandon Community Plan is based the following key points:

- New development, including the three Master Plan Areas—Fallingstar, Halpin and Peck Ranch—would be obligated to fund certain public facilities, such as improvements at SR 46 and West Centre Street, a pedestrian bridge over San Juan Creek, water system improvements, and portions of a wastewater treatment system, before their respective development projects could proceed. This is required primarily because of the existing deficiencies in the public facilities. These "obligated cost" payments for new development would total approximately $18.1 million or approximately 33% of the total projected public facility costs addressed in this plan.

- The balance of the obligated costs ($36.1 million) would be funded by other sources as determined by the County.

- Where a project's obligated costs will exceed its associated costs (i.e., the project's actual fair share of costs based on the project's impact to the public facilities), the obligated payer will be reimbursed for the portion of their initial costs that exceed their associated costs. The reimbursement payments would come from subsequent private development as it occurs, from the County as funds from impact fees accumulate, or other sources as available. Prior to commencement of construction of obligated public facilities, the developer must enter into a reimbursement agreement with the County, consistent with Ordinance 3129, which will describe how the reimbursement will occur.

- Prior to approval of major development, a Capital Improvement Plan will be prepared to determine actual costs of the public facility items, to finalize the impact fee program, and identify any supplemental funding sources to be used and determine the timing for obtaining the supplemental funding.

- The cost analysis assumes that both the private developers and the County would utilize debt (bond) financing to fund their obligated costs. For purposes of the analysis, it was assumed that these initial costs would be funded primarily by a series of Community Facilities District (CFD) bonds.

- Where a developer's obligated costs do not exceed their associated costs or where a developer does not have any obligated costs, then that development would be subject to development impact fees based on their fair share of the costs.

- Collected development impact fees would be used to reimburse obligated payers or pay down the CFD debt (or other types of bonds).

The following factors will influence long-term financing capabilities for obligated payers:

  - The degree to which it is financially feasible for each development project to pay impact fees at the levels indicated in this plan, given market constraints on property values in the Shandon area.

  - The CFD bonding capacity during the initial years of development in the Community Plan Area (when debt would be highest since it would be incurred before the flow of revenues from development impact fees). Section 8.7 provides a preliminary analysis of this issue.

  - The ability of the County to identify and obtain funding for required improvements that no individual developer or developers are obligated to develop or that are related to "regional" cost impacts. A general discussion of potential funding sources is provided in Section 8.7.

  - The numbers presented here reflect total costs at full buildout of the Community Plan plus transportation impact fees for one interchange at West Centre Street and SR 46. More detailed analysis reflecting the anticipated *phasing* of development and related infrastructure could yield more favorable conclusions (if, for example, there are efficiencies to be gained in planning the timing of facilities expenditures to match anticipated development/revenue flows).

Obligated Costs and Associated Costs

The following table shows the initial obligated costs for various entities listed by the type of major facility. These are the costs that are needed to pay for the public facilities listed in Tables 8.3 a, b, c and d. The table also shows the associated costs for the various community groups, i.e., the "existing town" and "other new development." The associated costs for the existing town represent the fair share for impacts to the infrastructure from properties that were developed at the time the Community Plan was adopted. However, only a portion of the fair share may be collected directly from the existing town. Please refer to Section 8.8 that describes the costs to the existing town. "Other Entity" is shown to have associated costs. These figures represent the fair share portions for circulation impacts that cannot be attributed to the Shandon community.

Table 8.4: Public Facility Costs Breakdown: Obligated Cost and Associated Cost for Payer/Entity, Master Plan Area, or Community Group

Payer/Entity	"Obligated" Cost[1] (Up-Front)	"Associated" Cost[2] (Fair Share)
A) "First Developer(s)"	$8,551,542	The associated costs for this entity will be allocated from within groups C, D, E, and F depending on who participates as the "First Developers."
Circulation	$1,827,542	
Water	$2,711,000	
Wastewater	$4,013,000	
Drainage		
B) "Subsequent Developer(s)"	$5,156,000	The associated costs for this entity will be allocated from within groups C, D, E, and F depending on who participates as "Subsequent Developers."
Circulation		
Water	$2,150,000	
Wastewater	$3,006,000	
Drainage		
C) Fallingstar Master Plan Area	$2,526,720	$11,568,164
Circulation		$6,249,438
Water	$354,000	$1,694,910
Wastewater	$1,170,000	$3,283,600
Drainage	$1,002,720	$340,216
D) Halpin Master Plan Area	$233,280	$1,157,548
Circulation		$444,596
Water		$276,750
Wastewater	$63,000	$275,210
Drainage	$170,280	$160,992
E) Peck Ranch Master Plan Area	$1,632,000	$10,371,963
Circulation		$5,894,573
Water	$1,428,000	$2,624,450
Wastewater	$204,000	$1,852,940
Drainage		
F) Other New Development	Other New Development may incur obligated costs if property owners join with First Developers or Subsequent Developers.	$7,039,518
Circulation		$2,836,566
Water		$1,675,390
Wastewater		$1,805,770
Drainage		$721,792
G) Existing Town		$8,653,307
Circulation		$1,217,327
Water		$869,500
Wastewater		$6,516,480
Drainage		$50,000
H) Other Entity	$36,080,283	$15,389,325
Circulation	$30,204,283	$15,389,325
Water	$498,000	
Wastewater	$5,278,000	
Drainage	$100,000	
Total	$54,179,825	$54,179,825

Notes: Please see the notes for Table 8.4 on the following page.

Notes for Table 8.4:

1) These are the total costs of the public facility items that an entity is obligated to install in order to initiate development.
2) Associated costs represent each group's "fair share" for impacts on the respective public facilities.
A) "First Developer(s)" could be one or more of the Master Plan Areas or a combination of Master Plan Areas and other new development.
B) "Subsequent Developer(s)" is identified as an obligated payer for certain public facilities that would be needed after the first developments.
C,D,E) Each of the Master Plan Areas have public facility items that they are obligated to install, in addition to their share as "First Developer(s)" or "Subsequent Developer(s)."
F) "Other New Development" means new developable areas other than the Master Plan Areas and vacant lots.
G) Most of the associated costs for the existing town will not result in direct costs to existing residents. Either these costs cannot be charged to existing development because the cost is due to existing deficiencies in the circulation system, or the costs will likely be covered by another entity to cover the costs for communitywide improvements, such as items C-16 through C-19 in Table 8.3.c. Table 8.9 shows the estimated funding impacts to existing development.
H) "Other Entity" is identified as the obligated payer for required improvements for which no individual developer or developers are obligated to construct. The associated costs for "Other Entity" represent the fair share for impacts to the circulation system that cannot be attributed to the Shandon community.

Reimbursement

As noted previously, when an entity's obligated costs exceeds its associated costs, it will need to be reimbursed for the difference over time. This will occur through the collection and disbursement of development impact fees that are based on the community groups' associated costs.

Associated Costs per Unit

The following table illustrates the approximate associated costs per unit of development for each of the four major community groups. Associated costs for existing developed property (existing town) are not shown in this table--please refer to Section 8.8 that describes the costs for the existing town. These figures give an indication of potential development impact fees that could be collected from each project in order to cover its fair share for impacts to the public facilities. The Shandon Capital Improvement Plan will be required in order to finalize a development impact fee program. The water and wastewater costs are distributed per dwelling unit or per 1,000 square feet (KSF) of commercial floor area by community group. Drainage costs are per acre, regardless of the land use. Circulation fees are presented as a flat fee per dwelling unit or per KSF of commercial floor area, regardless of the community group.

Table 8.5 – Associated Costs per Unit (potential development impact fee)						
Fallingstar	**RSF/unit**	**RS/Unit**	**MFR/unit**	**Retail/KSF[1]**	**Office/KSF**	**Ind/KSF**
Water	$5,000		$2,500	$2,000	$2,000	$2,000
Wastewater	$9,200		$6,900	$3,700	$3,700	$3,700
Drainage (54 acres)	$6,300 per acre					
Halpin	**RSF/unit**	**RS/Unit**	**MFR/unit**	**Retail/KSF**	**Office/KSF**	**Ind/KSF**
Water	$8,000			$3,200	$3,200	$3,200
Wastewater	$8,000			$3,200	$3,200	$3,200
Drainage (17 acres)	$9,500 per acre					
Peck Ranch	**RSF/unit**	**RS/Unit**	**MFR/unit**	**Retail/KSF**	**Office/KSF**	**Ind/KSF**
Water	$6,300		$3,100	$2,500	$2,500	$2,500
Wastewater	$4,100		$3,100	$1,700	$1,700	$1,700
Drainage	n/a[2]					
Other New Development	**RSF/unit**	**RS/Unit**	**MFR/unit**	**Retail/KSF**	**Office/KSF**	**Ind/KSF**
Water	$7,100	$10,600	$3,500	$2,800	$2,800	$2,800
Wastewater	$7,300	$7,300	$5,500	$2,900	$2,900	$2,900
Drainage (82 acres)	$8,800 per acre					
Circulation Impact Fees for New Development	**Per Residential Unit**			**Retail/KSF**	**Office/KSF**	**Ind/KSF**
	$9,000			$61,800	$10,100	$6,900

1) KSF = 1,000 square feet of floor area
2) Drainage on the Peck Ranch Master Plan Area can be handled on-site without shared facilities.

8.6 Funding Gap

After adjusting for reimbursements, a total of $30.1 million (or 56% of the total $54.2 million cost of future public facilities in the Plan area) would be paid by new development. The balance of the total costs--$24.1 million (44%)--cannot be tied to new development on a fair-share basis. These costs that cannot be "charged" to new development stem from two major sources: (a) existing infrastructure deficiencies within the community, and (b) regional traffic impacts not specifically generated by new development in Shandon. Approximately $709,000 for water system improvements would be contributed by the existing town (see Section 8.8 - Public facility costs for existing developed property), but $23.4 million would need to be borne by another source as identified by the County. The table below illustrates this funding gap that will need to be filled in order to fund improvements that address the impacts to key public facilities associated with Community Plan buildout.

Table 8.6: Funding Gap			
	Associated Costs	**Amount to be Funded**	**Funding Gap**
New Development	$30.1 M	$30.1 M	$0
Existing Town	$8.7 M	$0.7 M	$8.0 M
Other Entity	$15.4 M	$0	$15.4 M
Total	$54.2 M	$30.8 M	$23.4 M

8.7 Funding Methods

On September 7, 2010, the County Board of Supervisors adopted an Infrastructure Planning and Funding Policy based on the recommendations of the "Infrastructure Planning and Financing Team" (comprised of staff from the Administrative Office, Auditor/Controller, General Services, Planning and Building, Public Works, San Luis Obispo Council of Governments, and the Local Agency Formation Commission). Several funding and financing methods that were discussed in the Team's summary document[1] are presented in this section. Key narrative from the document is included in the *italicized* sections. Each potential funding and financing method is then followed by a determination (in **bold type**) on the potential applicability of each method to the Shandon Community Plan.

A significant challenge to funding future public facility improvements in Shandon is that a substantial portion of the projected costs cannot be charged to new development on a fair-share basis (since approximately 44% of the costs relate to existing public facility deficiencies and regional traffic impacts). A number of the funding methods described below are theoretically applicable to existing development (and therefore could potentially be used to address costs related to existing deficiencies). However, many of the funding methods require voter support in order to be implemented. The probability of obtaining the necessary voter support must be given strong consideration before they are pursued.

Impact Fees

Fees are generally collected at the time a building permit is issued or occupancy allowed, so they rarely provide enough funds for facility costs that occur prior to development. Deficits in funding due to the delayed receipt of fee revenues must be addressed through public financing or developer equity. New development can be asked to pay impact fees to mitigate the proportion of future impacts on infrastructure systems as documented in a "nexus" study.

It is possible to establish regional impact fees to collect fees from development in a wide area as long as the impact of the development can be shown to contribute toward the need for infrastructure improvements. Impact fees can also be used in conjunction with assessment districts, Mello-Roos Community Facilities Districts or Certificates of Participation (COP) to enable projects to be built before impact fees have accumulated sufficiently to pay for the projects.

Eligible Types of Facilities: Impact fees can be charged for nearly any type of public facility including utilities, transportation improvements, parks, open space, fire and police stations, libraries, and others.

Advantages:

- *Ease of collection*
- *Equitable allocation of costs based on impact*
- *Can be adjusted as needed to reflect new cost estimates, additional facilities, improved levels of service, and other changes.*

Disadvantages:

- *Limited to fund new development share of needs, so impact fees cannot fund facilities needed to address existing deficiencies*
- *Fees accumulate slowly, whereas facilities may be needed earlier*

[1] Source: memorandum entitled "Status Report from Infrastructure Planning and Financing Team," dated February 16, 2010.

- *Agreement of cities needed to establish regional impact fees*
- *Cannot be used for ongoing operating costs*
- *Fees cannot be adjusted to reflect ability to pay, so they have a negative impact on lower cost housing*
- *High cost to developers since fees may be financed with construction loans until development is completed and sold or refinanced*
- *Revenue available from impact fees is not predictable enough to support dept financing, so other techniques (such as COP or CFD) may be necessary until fee revenue can pay off dept.*

Potential applicability to Shandon:

Development impact fees can be used as a primary reimbursement tool for costs initially funded by developers and/or CFD bonds. The rate fees are collected would be less of a disadvantage for Shandon, because the impact fees would be used for reimbursement rather than payment for initial construction. Fees for larger projects requiring subdivision approval or Conditional Use Permit can be collected prior to recordation of final maps or issuance of building permits. Fees on individual undeveloped lots can be collected at the time of building permit issuance.

<u>Developer Contributions</u>
Large subdivisions and developments are commonly conditioned to require provision of public facilities or major financial contributions toward their provision by a public agency. Impact fees are a form of contribution. In other cases, a developer is asked to build the facilities and dedicate them to a public agency. The needed facilities can be identified through the process of preparing an environmental impact report (EIR). Sometimes a local government agency may enable the developer(s) to finance the facilities through creation of assessment districts, Mello-Roos districts or Certificates of Participation.

Eligible Types of Facilities: Contributions can be required for nearly any type of public facility including utilities, transportation improvements, parks, open space, fire and police stations, libraries, and others.

Advantages:
- *No voter approval required*
- *Not affected by GANN limit*
- *Consistent with public desire for developers to mitigate impacts they create*
- *Privately financed and constructed facilities not usually affected by prevailing wage requirements.*

Disadvantages:
- *Facilities not provided until developer obtains approval, design, finances and builds them, which adds delay to completion of developer's project*
- *Many developments are not large enough to be able to finance major public facilities improvements, if large enough to trigger exaction requirements*
- *Developers cannot be required to make contributions to cure existing deficiencies.*

Potential applicability to Shandon:

The "obligated cost" mechanism described in this chapter is a variation of the developer contribution concept.

Development Agreements

Under development agreements, essentially, a local government agrees to "freeze" development regulations applicable to a development for a defined period of time, and the developer agrees to provide certain improvements, dedications or other contributions benefiting the public. Each development agreement is tailored to the particular development and developer, but all development agreements must have a comprehensive project description and phasing schedule. Local government incurs some level of risk when entering a development agreement because it may have incomplete information regarding potential environmental impacts and public facility improvement needs. Thus, it may have committed itself to a set of development regulations and developer-provided improvements that will not address problems identified later.

The risks and benefits of this method of financing public improvements must be carefully evaluated before signing the development agreement.

Eligible Types of Facilities: Development agreements can address nearly any type of public facility including utilities, transportation improvements, parks, open space, fire and police stations, libraries, and others.

Advantages:

- *Flexibility to address specific needs of public and developer in each instance*
- *No voter approval required*
- *Not affected by annual limit on County appropriations (GANN limit)*
- *Consistent with public desire for developers to mitigate impacts they create*
- *Privately financed and constructed facilities not affected by prevailed wage requirements.*

Disadvantages:

- *Incomplete or inaccurate information about facilities needed could result in inadequate facilities with little recourse of local government*
- *Public may not support complex negotiated development agreements due to fear that their interests may not be protected*
- *An implementing ordinance may be required.*

Potential applicability to Shandon:

The County, at the time the Community Plan was adopted, did not utilize development agreements.

Mello-Roos Community Facilities Act of 1982

A special tax can be authorized to finance public facilities and services through a 2/3's vote of the residents or property owners in a defined geographic district, enabling the issuance of Mello-Roos bonds. If there are twelve or more registered voters in that district, then the vote is by the registered voters. If there are fewer than twelve registered voters, then the vote is by the property owners in that district. If the tax is approved, it would then be assessed to the properties in that district, only.

This is a flexible financing technique for various facilities, allowing either long- or short-term financing. Its capacity is limited by two factors: (1) the revenue stream that can be supported by new development and (2) the value-to- lien ratio. Mello-Roos Community Facility Districts (CFDs) can also finance public services. Facilities financed through a CFD can be located outside of the CFD boundaries.

A CFD may finance the planning, design, engineering, consultants, purchase, construction, expansion or rehabilitation of property with a useful life of at least five years. CFD bonds are non-recourse, meaning that the County General Fund and taxing authority are not at risk.

Eligible Types of Facilities: Mello-Roos CFDs can finance any type of public facility that a local agency is authorized to construct and own, including utilities, transportation improvements, parks, open space, fire and police stations, libraries, and others.

Advantages:

- *Flexibility in types and locations of facilities financed*
- *Provides secure source of revenue*
- *Can finance facilities earlier than impact fees*
- *Assessments can be adjusted to reflect ability to pay*
- *Non-contiguous boundaries are allowable.*

Disadvantages:

- *Two-thirds vote required of landowners or voters*
- *Large district may be administratively cumbersome*
- *Taxes approved by developer/property owners may be misunderstood by subsequent homeowner*
- *The special tax may affect the marketability of properties if similar properties are available that do not have the special tax.*

Potential applicability to Shandon:

As demonstrated in the example below, Mello-Roos / CFD financing would not have been viable for a single developer in Shandon at the time the Community Plan was adopted. As the economic climate changes, this form of financing could be a major component of the Shandon PFFP in future years. CFD financing could be more feasible for communitywide facilities that would be funded by a greater number of properties. However, given the requirement of two-thirds voter support, it may not be possible to apply this mechanism to existing development. The PFFP therefore assumes that this type of financing would apply only to new development. Any CFD financing used in Shandon must be consistent with the CFD goals and policies adopted by the Board of Supervisors on September 7, 2010.

CFD Bonding Example

The following table illustrates four CFD bonding examples—each with a different mix of participants (the participants in each example would also be "districts" subject to a vote). In the examples, the bond amounts vary depending on the public facilities needed. The bond amounts approximate the obligated costs for these projects. The percent of debt service to be carried by residential uses is based on the assumption that nonresidential uses would account for about 6% of initial development. According to adopted County policy, the maximum special tax submitted to the qualified voters of the district is not to exceed one percent of the projected assessed value of the developed properties at the time of full buildout of district formation. Furthermore, the total of the following shall not exceed 1.85 percent of the projected assessed value of the subject properties:

a. Ad valorem property taxes levied by the County.
b. Voter approved ad valorem taxes levied by the County in excess of one percent (1%) of the assessed value.
c. Special taxes levied by any existing CFD for the payment of bonded indebtedness or on-going services.
d. Assessments levied for any assessment district or maintenance district for the payment of bonded indebtedness or services.
e. The maximum special tax for the proposed CFD.

Therefore, this example assumes a maximum of 0.85 percent of the projected assessed value of the subject properties for CFD bonding capabilities.

The County will require that the credit quality of a CFD or assessment bond issue be such that the requirements of Section 53345.8 of the Government Code are met. All CFD bond issues should have value-to-lien ratio of at least 4:1 or greater for the entire district, including any overlapping special assessment or special tax liens. A CFD with a value-to-lien ratio of less than 4:1 but greater than 3:1 may be approved at the sole discretion of the Board of Supervisors upon recommendation of the County Administrative Officer based upon the specific merits of the project. This example illustrates both 4:1 and 3:1 ratios for comparison.

Table 8.7: CFD Bonding Examples				
	Fallingstar	Fallingstar + 80 units east of San Juan Creek	Fallingstar and Peck Ranch	Fallingstar, Peck Ranch + 80 units east of San Juan Creek
Total Bond Amount	$11,100,000	$11,700,000	$17,888,000	$18,488,000
Bond Term (Years)	30	30	30	30
Bond Interest Rate	7%	7%	7%	7%
Annual Bond Debt Service	$894,509	$942,861	$1,441,530	$1,489,881
% of Bond Debt Service borne by residential	94%	94%	94%	94%
Number of residential units	395	475	817	897
Maximum special tax[1] and home values				
County-defined maximum tax and special assessments, as percentage of total assessed value (ie., the CFD maximum would be 0.85%)	1.85%	1.85%	1.85%	1.85%
Annual debt service per residential unit	$2,129	$1,866	$1,659	$1,561
Approximate minimum assessed new-home value (average of all units, including single-family and multi-family) necessary to meet the annual debt service per residential unit	$250,436	$219,514	$195,124	$183,683
Value-to-lien ratio requirements				
County-defined minimum value-to-lien ratio (factor by which property value should exceed lien)	4:1	4:1	4:1	4:1
Acreage of Fallingstar (gross acreage including open space, etc.)	86	166	184	264
Approx. required minimum per/acre value (as entitled and with CFD-funded improvements in place, but undeveloped) to meet County target factor of 4:1	$516,279	$281,928	$388,447	$280,121
Minimum per/acre value to meet alternative County target ratio of 3:1	$387,209	$211,446	$291,336	$210,091

1) Assumes no other special assessments

In order to stay within the County's target limit of 1.85% (base rate plus the 0.85% for special assessments), the average assessed value of a new home would have to be in the $200,000 to $250,000 range. This is somewhat higher than the assessed values in 2011, which were typically less than $200,000. In 2011, a new-home price of $200,000 in Shandon would have been higher than the median sales price.

The value-to-lien analysis is conducted on a land-development basis, taking the land as entitled and with CFD-funded improvements (water, sewer, streets and utilities) in place, but otherwise undeveloped. The analysis indicates that required land values to meet the County's preferred ratio target of 4:1, or even 3:1 if allowed, would appear to exceed a realistic appraised value by a considerable margin (for all four examples).

This example is potentially a "worst case" scenario, since by phasing the improvements, and hence the CFD amounts, the feasibility of the CFD could potentially be enhanced. Also, the County could in theory modify its own policies if it determines that the public purpose and other conditions so warrants. In the case of Fallingstar, reimbursements by other development could significantly reduce the burden of a CFD on the community in future years.

1913/1915 Act Assessment Districts

The majority of property owners vote to authorize assessment district formation that is somewhat simpler than Mello-Roos districts. Once an assessment district is formed, the County can issue tax-exempt bonds to finance needed infrastructure and make payments on the bonds with revenues obtained through assessments paid with tax bills. Properties are assessed according to special benefit, so this type of financing tool is less flexible than Mello-Roos CFDs. Each parcel of property is assessed a portion of the costs of public improvements based on the proportion of benefit received by that parcel. Proposition 218 provided that formation of an assessment district is subject to a majority ballot protest enabling a majority of property owners to vote against the district and postpone its formation for at least one year. Items of general benefit to a community and items of regional benefit are not normally financed through assessment districts. Similar to CFD bonds, assessment district bonds are non-recourse.

Eligible Types of Facilities: Assessment districts can finance public facilities that directly benefit specific properties, including water and sewer systems, transportation and flood control facilities.

Advantages:

- *Secure, reliable source of revenue*
- *Recovers annual administrative costs*
- *Can finance facilities earlier than impact fees*
- *Can be used to fund existing deficiencies.*

Disadvantages:

- *Not suitable for regional facilities due to requirement of direct rather than general benefit*
- *Potential for protest by existing property owners.*

Potential applicability to Shandon:

This type of assessment district is potentially viable for funding existing deficiencies. The assessment district may include existing development, undeveloped land or both.

Although a lower level of voter support is required (a simple majority) than CFD financing (which requires a two-thirds vote), this method may not be feasible to implement.

Sales Tax Override

With a two-thirds vote of County voters, a special Countywide sales tax could be created to provide revenue to repay debt or accumulate funds to finance needed improvements. The sales tax could be pledged to repay revenue bonds for needed public improvements. Alternatively, with just a majority vote of County voters, the sales tax could be increased as a general tax subject to the annual county budget process. Since such a general tax increase would not be dedicated to repayment of bonds, it would not be possible to issue revenue bonds with this source of repayment. However, general obligation bonds could be authorized by the voters based on assurance that the special sales tax revenue will pay off the bonds.

Eligible Types of Facilities: Sales taxes could be used to finance nearly any type of public facility including utilities, transportation improvements, parks, open space, fire and police stations, libraries, and others.

Advantages:

- *Large amounts of funds could be generated each year to repay debt or accumulate for pay-as-you go financing of projects*
- *Some of the revenue would be paid by residents from other regions.*

Disadvantages:

- *Local governments may prefer to use any potential increase in sales tax revenue to cover annual operating costs instead of financing public facilities*
- *If not dedicated to repay debt for public facilities, sales tax revenue probably cannot support long-term debt for public facilities projects unless voters approve issuance of general obligation bonds.*

Potential applicability to Shandon:

If a sales tax override were approved to fund needed facilities rather than a general tax, the ballot measure would identify the type(s) of public facilities that could be funded. If, for example, the tax were for libraries, then a new library in Shandon would be considered along with other County libraries. A sales tax override cannot be based on collecting taxes just in Shandon solely for facilities in Shandon. Though, theoretically, a countywide tax could be approved specifically for a facility in Shandon. This is method is not likely to be successful during times of fiscal constraint.

Redevelopment Tax Increment Financing

Formation of a redevelopment agency enables a local government to capture and use a portion of increases in property tax revenues over a 40-year period to repay debt needed to finance a wide variety of public facilities. A redevelopment plan must be prepared to identify an area with conditions of physical and economic blight that can be eliminated through redevelopment financing. At least twenty percent of redevelopment tax increment must be used for low and moderate income housing.

Eligible Types of Facilities: Redevelopment tax increment financing can be used to finance most public facilities needed to eliminate documented conditions of blight in the project area.

Advantages:

- *Tax increment financing allows long-term borrowing to solve existing deficiencies and provide facilities needed to support new development*
- *Careful use of redevelopment financing may stimulate private investment in redevelopment areas, resulting in additional tax increment*

Disadvantages:
- *Redevelopment tax increments represent future lost revenue for existing County and special districts that have already been cut back by the state*
- *Public fear of redevelopment agencies potential use of the power of eminent domain*
- *A determination of physical and economic blight within the project area is required, which can result in local opposition*
- *Public perception that redevelopment accelerate development and associated growth impacts (traffic, loss of open space, etc)*

Potential applicability to Shandon:

At the time of the adoption of the Shandon Community Plan, the County of San Luis Obispo did not have a redevelopment agency, but was exploring the possibility of establishing one. If a redevelopment agency is established, the existing Shandon community would be an appropriate candidate for a redevelopment project area. Redevelopment is commonly used in California to address existing deficiencies in a community's infrastructure, which is one of the fundamental challenges facing Shandon.

Infrastructure Financing Districts
Similar to Redevelopment, IFD's authorize tax increment financing to repay debt without assessment districts or elections. An IFD may finance the purchase or construction of any facility with a useful life of at least fifteen years, including roads, sewage treatment, water supply, and flood control systems, and other public facilities. All facilities financed through an IFD must be of community-wide importance and benefit an area larger than the IFD itself.

Advantages:
- *IFD's can be used to finance improvements with regional benefit*
- *IFD's are not considered County debt*
- *Tax increment from taxing entities who do not wish to participate can be excluded from the IFD.*

Disadvantages:
- *IFD's reduce tax revenues to the County and other districts choosing to participate*
- *Only two IFD's have been formed yet, so little is known about their feasibility.*

Potential applicability to Shandon:

This method is not likely to be successful during times of fiscal constraint since the County and other taxing entities will be reluctant to forego tax revenue in order to facilitate the financing of infrastructure.

Revenue Bonds
This financing technique requires a source of revenue to repay the bond debt, so it's not appropriate for highway improvements (unless they are toll roads). Revenue bonds can be used to finance revenue-generating improvements such as water and sewage collection, supply and treatment systems. A majority vote is required to authorize the size and purpose of the bond

issue. Unlike land secured bond financing, no special district must be formed when issuing revenue bonds. Debt service can be paid with utility bills instead of tax bills. Revenues pledged for payments on revenue bonds would count against the County's appropriation limit.

Eligible Types of Facilities: Revenue bonds can finance public facilities that generate revenue, such as water and sewer systems.

Advantages:

- *No special district required*
- *Debt service paid with utility bills instead of tax bills.*

Disadvantages:

- *Only appropriate for revenue generating facilities*
- *Counts against County's appropriation limit.*

Potential applicability to Shandon:

Revenue bonds are a potential source of capital funding for water and sewer systems, including improvements to the existing water system. Debt service for revenue bonds could be applicable to both new development and the existing community in the form of increased water (or sewer) rates. It may not be possible to implement this method if the resulting utility rates become excessive for local residents.

General Obligation Bonds

Subject to a two-thirds vote of registered voters countywide, the County can issue bonds to finance infrastructure and secure the bonds through an ad valorem property tax levied on properties countywide. In some cases, the election and tax increase can be limited to a specific area that will benefit from the project. The County would adopt a resolution to place the measure on the ballot, prepare a tax rate statement advising voters of the proposed tax rate, and prepare ballot arguments for and against the measure and an independent analysis.

The total amount of outstanding bonds may not exceed fifteen percent of the assessed valuation of taxable property within the affected area. As a result of Proposition 13, an ad valorem tax may be considered unfair because recently built or purchased properties will pay substantially higher taxes than other similar properties. Alternatively, voters could approve issuance of General Obligation Bonds without increasing property taxes. However, this approach would further burden the County general fund and therefore is inadvisable.

Advantages:

- *Cost is spread over many properties, so cost to each property owner is minimized*
- *Improvements that benefit a wide region (the entire jurisdiction if possible) are most appropriate*
- *Very sure financing instrument, so interest rate is low.*

Disadvantages:

- *Difficult to obtain two thirds vote jurisdiction-wide*
- *Under Proposition 13, tax increase based on assessed property value could be considered unfairly distributed.*

Potential applicability to Shandon:

It may be politically challenging to implement this method, especially in times of fiscal constraint. An ad valorem property tax may also impact potential CFD financing.

Certificates of Participation

Certificates of Participation (COP) allow long-term debt without an election for public improvements involving a lease or installment sales structure. The parties to COP include a public agency, a non-profit corporation and a trustee. The non-profit corporation may be formed specially to construct public improvements, the funds for which come from proceeds of the COP's sale. The nonprofit then leases or sells the land and facilities back to the public agency. Investors who purchased the COP receive a portion of the public agency's payments to the non-profit corporation. COP are secured by the covenant of the public agency to make annual payments to holders of the certificates. The appropriations may come from the General Fund or from an enterprise fund for water or sewer services. Revenue allocations for COP count toward the issuer's appropriations limit. The County used COP financing for the Vineyard Road interchange with Highway 101 in Templeton, since impact fees were expected to be sufficient to pay off the COP bonds and thereby relieve the annual burden on the County general fund.

Advantages:

- *No election and no special district is required*
- *Do not count against GANN limit*
- *Enable completion of improvements earlier than with pay-as-you-go financing.*

Disadvantages:

- *Revenue allocated for COP payments count against jurisdiction's appropriations limit*
- *Anti-tax groups may consider COP to represent a Proposition 13 loophole.*

Potential applicability to Shandon:

Revenue bonds (as described above) are likely to be a better option for Shandon than Certificates of Participation, since repayment options for COP financing (other than a long-term general fund burden) appear insufficient.

California Infrastructure Bank (i-Bank)

The County can borrow at low interest rates for up to thirty years, or project's useful life, if less than 30 years, from the State to finance certain public projects with an economic development result. The revenue source could be from the General Fund, special districts, or development agreement(s).

Advantages:

- *Low interest loans for up to 30 years*
- *Wide variety of improvements and repayment sources allowable*

Disadvantages:

- *Applicants may need to show inability to borrow enough from other sources to be eligible*
- *Improvements must be ready to begin construction within 12 months of loan commitment*
- *Competitive process could result in denial or delay in loan commitment*

Potential applicability to Shandon:

At the time of adoption of the Shandon Community Plan, the potential of using this funding method was unknown, since a repayment source is needed. Implementation Program PFFPIP-6 requires a feasibility study for this funding method. This method could potentially be used when CFD financing is not feasible or when alternative funding sources such as impact fees or developer contributions may be sufficient to repay the i-Bank loan in a relatively short period of time.

State and Federal Grants and Loans

Cal Trans Road Funding Program
The San Luis Obispo Council of Governments (SLOCOG) allocates state and federal transportation funds in the county. To be eligible for funding, projects must be identified in the State Transportation Improvement Program (STIP). Projects also must have local funds to cover some portion of the cost.

Potential applicability to Shandon:

This is a possible funding source for the grade separations indicated in the Section 8.4 (Items A-4, A-8, A-13 and A-17). However, during times of fiscal constraint, this method may not be successful. Although the grade separations are required with the 2050 (40-year scenario), the Transportation Impact Fee program includes collecting fees for one interchange at West Centre Street (items A-4 and A-8). The impact fees could go toward a local match in funding that would most likely be required.

Community Development Block Grant (CDBG) Program
CDBG funds can be used for projects that primarily benefit persons with income below eighty percent of median income. Projects that primarily benefit low income communities such as Oceano, San Miguel, Shandon and eastern Nipomo might be eligible for CDBG funding. The amount of CDBG funds available each year is limited, but the County might be able to borrow approximately $4 million through the federal Department of Housing and Urban Development's Section 108 Program with repayment to come from a portion of future CDBG awards. Other state and federal grant and loan programs exist that may be suitable for specific types of public works projects in some communities:

- *U.S. Department of Agriculture Water and Wastewater Grants and Loans;*
- *State Revolving Fund for Waste Water Facilities;*
- *State Water Reclamation Loan Program;*
- *Water Conservation Loan Program.*

Potential applicability to Shandon:

CDBG funding is likely to be viable for some portion of the identified costs of correcting existing public facility deficiencies in Shandon, unless the proportion of low income households in Shandon decreases to where the community would no longer qualify. Implementation Program PFFPIP-3 requires investigation into other potential grants for Shandon.

Table 8.8: Funding and Financing Methods - Summary Comparison			
Method	**Applicability in Shandon - year 2012**	**Applicability in Shandon - future**	**Voter Approval Required**
Impact fees	high	high	no
Developer Contribution	high	high	no
Development Agreements	n/a	low	no
Mello-Roos CFDs	low	high	yes
1913/1915 Act Assessment Districts	low	low	yes
Sales Tax Override	low	low	yes
Redevelopment Tax Increment Financing	n/a	med	no
Infrastructure Financing Districts	low	med	no
Revenue Bonds	low	med	yes
General Obligation Bonds	low	low	yes
Certificates of Participation	low	low	no
California Infrastructure Bank	n/a	unknown	no
Cal Trans Road Funding Program (SLOCOG)	n/a	med	no
Community Development Block Grant (CDBG) Program	low	high	no
Rural Community Facilities Loan/Grants through USDA	med	med	no
Other Grant Programs	low	high	no

8.8 Public facility costs for existing developed property

This section provides information for properties that were developed prior to the adoption of the Shandon Community Plan. If the subject property is proposed for redevelopment that will either increase residential density or increase the land use intensity for non-residential uses, then please refer to Section 8.9.

Circulation Improvements

Costs associated with impacts to the circulation system from existing development cannot be collected through an impact fee program. For example, the fair share cost for traffic impacts at buildout from existing development (2009) at the intersection of West Centre Street and State Route 46 amount to $467,967 (including the costs for a grade separation but not for the widening of SR 46). The $467,967 would have to be funded through a County sales tax (or other) ballot measure, regional transportation funding programs, or State or Federal grants. Without a locally-approved ballot measure, existing, developed properties that are not redeveloped will not be required to contribute directly to circulation improvements. Likewise, residential properties that undergo remodeling or additions without an increase in residential density will not be required to pay traffic impact fees. Non-residential uses that are redeveloped will be responsible for paying traffic impact fees for the incremental increase in the intensity of the use.

Water System Improvements

The existing CSA-16 water system, in 2012 had 329 residential connections and 13, non-residential connections. The 5-year capital outlay schedule for CSA-16 identifies several system upgrades. Three of the upgrades, totaling $2,860,000 would be redundant with improvements required with the Shandon Community Plan (see Table 8.3.b, items B-1, 2, 3, 8, and 10). Existing developed properties within CSA-16 would be responsible for paying their fair share for these redundant water system improvements. Depending on when future development occurs, the required improvements could ultimately be installed by either an obligated payer or the

CSA. However, these projects are not in the CSA budget (2012) and are not expected to be budgeted in the near future. Regardless of who makes the improvements, the cost of the redundancies would be shared by a greater number of users. Therefore, if developer installed, the cost per unit would go down significantly from approximately $8,200 per existing unit to approximately $2,025 per existing unit.

One of the long-anticipated improvements to the water system is connection to the State Water Project, from which CSA-16 has a 100 acre-foot-per-year allocation. In 2012, the CSA had adequate reserves to construct the State Water Project turnout—item B-15, Table 8.3.b. Should future development obtain an additional allocation for State Water, it would need to reimburse the County for its fair share of these improvements.

Redeveloped properties that increase residential density or non-residential intensity will be responsible for their fair share for water system facilities. In such cases, please refer to the associated costs for "other new development".

Wastewater System Improvements

Existing developed properties may potentially continue to use existing on-site septic systems indefinitely and will not be required to contribute to wastewater system improvements until such time the following criteria are met:

1) The wastewater treatment plant is built with capacity to handle the existing developed properties, (this would most likely occur with the second of plant construction), and

2) Sewer mains and/or collectors are installed within the existing neighborhood right-of-way, and

3) The subject property is within 200 feet of a sewer main or collector, and

4) The septic system on the subject property fails or the property owner obtains a building permit that includes features that would increase potential wastewater generation (eg., adding a bathroom or bedroom).

Or 5) the State Regional Water Quality Control Board (or other health authority) mandates connection to the sewer.

It is the priority of the Shandon Community Plan (Policy PFFPP-3) to fund the existing community's fair share for treatment plant construction, sewer mains, lift stations, and collector lines with State and/or Federal grants or sources other than direct impact fees. Please refer to Section 8.7 for other potential funding methods. Existing developed properties would be responsible for installation of their sewer laterals, any connection fees and monthly charges for plant operation and maintenance.

Redeveloped properties that increase residential density or non-residential intensity will be responsible for its fair share for wastewater treatment facilities. In such cases, please refer to the impacts fees for "other new development".

Drainage System Improvements

Existing developed properties will not be required to contribute to any of the drainage facilities installed by any of the planned developments. Implementation Program PFFPIP-2 requires the County to prepare a Master Drainage Plan, estimated at $100,000, for the community that would identify drainage improvements throughout the existing portions of Shandon. Funding for the Master Plan and the subsequent storm drainage improvements would be achieved in the same manner as the existing community's share for wastewater system improvements with State and/or Federal grants or sources other than direct impact fees. Please refer to Section 8.7 for other potential funding strategies.

Table 8.9: Estimated Funding Impacts to Existing Development

	Associated Costs	Direct Cost Total	Per Unit Cost	Other Funding Sources[1]
Circulation	$1,217,327	--		SLOCOG, Grants, Sales Tax or other Ballot Measure
Water[2]	$869,500	$709,000	$2,025	
Wastewater[3]	$6,516,480	--	$2,800 to $6,150	Grants, special assessments, funding districts, bonds or loans
Drainage[4]	$50,000	--		

1) See Section 8.7 for greater detail.
2) Water system costs are only for system improvements that are redundant with CSA-16 capital improvement projects.
3) The per unit costs are for sewer lateral and septic tank abandonment only and do not include any payments for the existing town's associated costs for the wastewater treatment plant, sewer mains or lift stations. These costs are only applicable if and when connection to the sewer is required. The estimates are for an 80 foot long sewer lateral and septic tank abandonment. The cost range varies depending on the lateral location (front yard, rear yard or restricted access).
4) Estimated share for Master Drainage Plan. The associated costs for drainage facilities will increase with the completion of the Shandon Master Drainage Plan.

Table 8.10: Comparison of Single Family Residential Bi-Monthly Wastewater Bills (2010)

Atascadero	Oceano	Arroyo Grande	Heritage Ranch	Templeton	Grover Beach	Paso Robles
$40.36	$38.97	43.62	$45.21	$46.68	$46.88	$51.72
San Miguel	Morro Bay	Pismo Beach	Nipomo	Cambria	Avila Beach	San Luis Obispo
$61.80	$75.02	$79.91	$88.32	$101.89	$111.40	$114.18

Source: Draft Water and Wastewater Rate Study for Oceano Community Services District, Tuckfield and Associates, September 2010. Based on 2,000 cubic feet bi-monthly (approximately 249 gallons per day).

8.9 Public facility costs for existing undeveloped property (other new development)

This section provides information for properties that were undeveloped at the time the Shandon Community Plan was adopted, residential properties where redevelopment is proposed that will increase density, and non-residential properties where redevelopment will increase the land use intensity on the site. This section does not apply to land within the Fallingstar, Halpin or Peck Ranch Master Plan Areas.

Unless the proposed project participates as the First Developer or Subsequent Developer, the fair share for public facilities with projects in the "Other New Development" community group will be in the form of an impact fee. Impact fees with subdivisions will be paid prior to recording final subdivision maps or in a time frame as determined by Conditional Use Permit. Impact fees on individual vacant lots will be paid at the time building permits are issued. The impact fee will be used to reimburse the obligated payer who installed public facilities or contributed toward a future improvement. The following table illustrates the approximate associated costs per residential unit and per 1,000 square feet of non-residential development for Other New Development. It gives an indication of potential development impact fees.

Table 8.11 - Associated Costs (Potential Impact Fees) Per Unit for Other New Development

Other New Development	RSF per unit	RS per unit	MFR per unit	Retail per KSF[1]	Office per KSF	Ind per KSF
Circulation	$9,000	$9,000	$9,000	$61,800	$10,100	$6,900
Water	$7,100	$10,600	$3,500	$2,800	$2,800	$2,800
Wastewater	$7,300	$7,300	$5,500	$2,900	$2,900	$2,900
Drainage	$8,800 per acre (82 acres)					

1) KSF = 1,000 square feet of floor area

If the proposed project precedes development on Fallingstar, Halpin and Peck Ranch, then the proposed project would be responsible to assume the role of obligated payer and install the improvements necessary to mitigate the project's impacts to the public facility.

8.10 Other Public Facilities

In addition to the key public facility items listed in Section 8.4, a variety of other public facilities listed below may be funded by many of the funding methods described in Section 8.7:

- Street lights
- Police and fire stations
- Police and fire services
- Parks
- Libraries
- Transit improvements
- Landscape and irrigation facilities
- Reclaimed water facilities
- Environmental mitigation
- Bicycle and pedestrian facilities
- Electrical conduits
- Public parking facilities

8.11 Other Public Facility Fees

Title 18 of the County Code provides for fees to be collected with new development projects to pay for their fair share for a variety of public facilities. Those fees contribute to facilities for: fire departments, government, libraries, parks, and sheriff.

Park fees or land dedication for parks are collected with subdivision applications (commonly known as Quimby fees). Quimby fees are implemented in Title 21 of the County Code. In cases where Quimby fees have been paid, the "land portion" of the Public Facility Fee is not charged.

School fees are collected at the time building permits are issued. School fees are subject to Government Code Section 65995.

8.12 Public Facilities Funding and Financing Policies

PFFPP-1 Fund core infrastructure and public facilities in an equitable manner based on an entity's fair share of its impacts to the infrastructure or facility.

PFFPP-2 Require new development to a) install necessary infrastructure with the initial phase of development or at the time prescribed in the Shandon Community Plan EIR or subsequent environmental determination, b) fund its fair share for public facilities prior to commencement of development.

PFFPP-3 As a priority, fund the existing community's fair share for new public facilities with sources other than direct impact fees.

PFFPP-4 Secure required funding for needed public facilities before major development is approved.

PFFPP-5 Fund and finance public facilities in a manner that is consistent with the County's adopted Infrastructure Planning and Funding Policy and Community Facilities Districts Local Goals and Policies

PFFPP-6 Avoid long-term financing plans that place too great of a burden on future property tax payers.

8.13 Public Facilities Funding and Financing Implementing Programs

PFFPIP-1 Prepare a Capital Improvement Plan for the public facility items described in this chapter.

PFFPIP-2 Prepare a Master Drainage Plan for the community.

PFFPIP-3 Investigate and apply for potential grants that would provide funding for key public facility items, especially to address the funding gaps described in this chapter. Investigate and apply for potential grants that would provide funding for other public facilities listed in Section 8.10.

PFFPIP-4 Conduct a feasibility study for applicable use of the California Public Infrastructure Bank for Shandon.

PFFPIP-5 In coordination with San Luis Obispo Council of Governments and Caltrans, seek funding in addition to the Traffic Impact Fee Program for grade separated access to State Route 46.

PFFPIP-6 Work with the City of Paso Robles, the San Luis Obispo Council of Governments and Caltrans to establish a fee program to construct and implement needed off-site traffic improvements located within the City of Paso Robles as identified in the February 2010 Wood Rodgers Transportation Impact Study [Appendix F, Environmental Impact Report for the Shandon Community Plan Update and San Juan Village (Fallingstar Phase I) Project], including widening of State Route 46 and improvements to the State Route 46/ US 101 interchange. See also EIR mitigation measure T-1(b) in Appendix D of this Plan.

Proposed projects using State Route 46 as their primary access to urban services shall contribute their fair share of fees. The fee program would consist of either 1) an areawide fee where projects that are located within the study area will be required to pay impact fees that would be provided to the City of Paso Robles, or 2) a requirement that applicants for future projects "front" the cost of the off-site improvements and be reimbursed as land uses are developed. A preliminary fair-share estimate for the planned future State Route 46 East grade-separated interchanges at Jardine Road, Union Road, and Golden Hill Road is included in Table 1 of Appendix F, *Transportation Impact Study,* Environmental Impact Report for the Shandon Community Plan Update and San Juan Village (Fallingstar Phase I) Project. Once, the fee mechanism is developed, amend ordinances as needed in order to implement it.

Chapter 9: Implementation

The Shandon Community Plan is a component of the Shandon-Carrizo Area Plan, Part II of the Land Use Element of the San Luis Obispo County General Plan. It is the primary tool to review development proposals (e.g., master plans, tentative subdivision maps, site plans, and improvement plans) within the URL.

The land uses and combining designations described and mapped in Chapter 3 of this Plan are reflected in the Official Maps, Part III of the Land Use Element of the County General Plan. Allowable uses within each land use category can be found in the Land Use Ordinance (LUO), Title 22 of the County Code.

The goals and policies of this Plan are implemented through programs, standards and guidelines. Guidelines and programs are summarized in Sections 9.6, 9.7 and 9.8. The official standards, called planning area or community planning standards, are found in the LUO and are used day-to-day to design, review and regulate land use. These standards supersede any conflicting standards found elsewhere in the LUO.

Standards are requirements that are primarily to be included in the design and evaluation of development projects and land divisions projects. They address special conditions and help provide consistency throughout the community or within a particular land use category or combining designation. Compliance with the standards is mandatory.

Guidelines are advisory, but are to be used in evaluating projects subject to discretionary review. They recommend features or techniques that help achieve a desired affect through a combination of ways rather than by fixed standard. However, alternative approaches that achieve the same or better results may also be used. Guidelines generally deal with design issues.

Programs are recommended actions, rather than mandatory requirements, that help implement the goals and policies of this Plan. A program may be initiated by the County or another agency or group. Since many recommended programs involve public expenditures or other funds, the initiation of programs will depend on the availability of funding.

9.1 Administration

The San Luis Obispo County Department of Planning and Building is responsible for the administration of the Shandon Community Plan. The Director of Planning and Building has the responsibility and authority to interpret the meaning and applicability of all of the provisions of this Plan as specified in the LUO. In addition, the Planning and Building Department will coordinate with other County departments and with state and other agencies and organizations to implement the Plan and monitor compliance with policies (e.g., Public Works Department approval of street improvements or the Department of Fish and Game involvement in implementing the Shandon Habitat Conservation Plan, etc.).

9.2 Amendments to the Community Plan

Amendments to the Community Plan are made according to the provisions found in Framework for Planning of the Land Use Element. Periodic amendments to the Community Plan may be made in order to respond to changing economic and other conditions, including community needs and desires. Amendments to the community planning standards are made through amendments to the LUO, without the need to amend the Shandon Community Plan.

In addition to the provisions found in Framework for Planning for general plan amendments, proposed amendments to expand the Shandon Urban Reserve Line should only be made when there is less than a seven-year supply of available, vacant land within the URL to accommodate the reasonably anticipated or historic growth needs of the community. Exceptions may be made when there is an overriding public need to expand the URL.

9.3 Comprehensive Update of the Community Plan

The Shandon Community Plan has a planning horizon of 25 years. If projected growth rates are exceeded during this time period, the Community Plan should be updated to respond to community growth prior to the year 2037. A comprehensive update of the Shandon Community Plan will be necessary when one of the following two criteria occur:

a) The population of Shandon exceeds 75 percent of the buildout population identified in this Plan, or
b) There is less than a five-year supply of available, vacant land within the URL to accommodate the reasonably anticipated or historic growth needs of the community.

If neither of the above criteria occurs, a comprehensive update should be initiated by the year 2032 to ensure that an updated Shandon Community Plan is adopted by 2035.

9.4 Public Infrastructure and Services

San Luis Obispo County will work with landowners and developers to ensure that needed improvements to infrastructure are made concurrent with the actual need. Where appropriate, improvements to infrastructure shall be the responsibility of the developer.

9.5 Development Review Process and Development Fees

Major development projects will likely involve land divisions, as regulated by the Subdivision Map Act (Government Code Section 66410, et seq.), the County's Real Property Division Ordinance, Title 21, and the LUO. Major development projects will also involve Conditional Use Permit (CUP) approval, also regulated by the LUO. Both land division applications and CUPs are discretionary applications that may be approved, conditionally approved, or disapproved. The land division and development review process for larger projects will likely include, among other requirements, infrastructure plans for the placement of parks, sewer, water, storm drainage, and other facilities and services, along with the funding mechanisms necessary to complete and maintain these facilities.

Smaller projects may also require a land division, CUP or Minor Use Permits (MUP). Like land divisions and CUPs, MUPs are discretionary and may be approved, conditionally approved, or disapproved. The conditions of approval may require, among other requirements, the installation of infrastructure or the payment of impact fees.

Building permit applications go through a "ministerial" land use permit called a Zoning Clearance. Zoning Clearances are processed and approved as part of the building permit process. Any requirements to install infrastructure or pay an impact fees must be identified in County ordinance.

Please refer to Article 6 of the LUO for a detailed description of the various land use permit applications.

9.5.1 Master Plan Areas

A Conditional Use Permit must be approved in order to authorize proposed development in the Master Plan Areas identified in Section 3.2, unless the property owner elects to prepare a Specific Plan, consistent with Government Code Sections 65450 and 65457. The Master Development Plan or Specific Plan shall regulate subsequent development, the extension of infrastructure, and the provision and financing of public services throughout the entire Master Plan Area to facilitate orderly and timely development. These implementing documents shall be consistent with the Shandon Community Plan's goals, policies, and standards. Any additional environmental documents deemed necessary to satisfy CEQA shall be completed and approved prior to any project approval. Properties located within agricultural preserves will require land use category (General Plan) amendments from Agriculture to categories consistent with Figure 3.1. Such amendments should be considered concurrently with or prior to the approval of the Master Plan or Specific Plan.

9.5.2 Fees

In order to mitigate the impacts and costs associated with development, fees may be may be required as a condition of approval with a land division or land use permit or as specified by ordinance for ministerial permits. From time-to-time, some fees will need to be updated in order to provide the funding for necessary public facilities and services. Chapter 8, Public Facilities Financing Plan, discusses funding for key public facilities.

9.6 Community Development Guidelines

The following development guidelines are to be used in connection with the design and review of applications for development projects, in addition to the community planning standards found in Chapter 22.110 of the Land Use Ordinance, Title 22 of the County Code,. These measures will help achieve the community vision, implement Plan policies, and avoid or mitigate environmental impacts.

9.6.1 Communitywide Guidelines

The following guidelines apply throughout the Shandon urban area (URL) and also apply to the Commercial Service (CS) land use category located near the intersection of West Centre Street and State Route 46, which is outside of the URL:

a) **Drainage.** Applicants should consider using measures in the County's Low Impact Development handout as applicable.

b) **Tree protection.** Where trees are to be retained, new development should be located away from the tree a minimum distance of 1.5 times the diameter of the tree's drip line.

c) **New land divisions - Park sites.** The applicant should consider land dedication rather than payment of Quimby fees.

9.6.2 Land Use Guidelines

The following guidelines apply within the applicable land use areas as shown on Figure 3.1:

a) **Commercial Retail, Commercial Service, Mixed Use (CR, CS, MU).** The following commercial design guidelines apply to properties in the Commercial Retail, Commercial Service and Mixed Use land use areas. These guidelines are intended to help implement the commercial design policies and create a welcoming and aesthetically pleasing built environment for the Shandon community. The commercial areas should be close to and well-connected to surrounding neighborhoods, providing easy accessibility by both vehicles and pedestrians. Commercial uses should be oriented toward the street, with interior parking away from the street and out of view from the surrounding residential neighborhood. Site development and building design should be pedestrian-friendly and welcoming.

Commercial Design Guidelines: Site Planning

i. Buildings and entrances should front the street or sidewalk where a strong pedestrian circulation system is present.

ii. Due to the high visibility of corner properties, extra care should be given to building orientation and articulation.

iii. Plazas, landscape fountains, public art, textured pavement, accessible changes in pavement levels, and vertical building features should be combined to create focal points and identity.

iv. Buildings should be oriented to create pedestrian plazas, pathways, courtyards, and eating areas to enhance the quality of the outdoor environment.

v. Where feasible, sites with restaurants or cafes should provide for outdoor seating.

Commercial Design Guidelines: Building Form

i. Building bulk and mass should be reduced as much as possible by various vertical and horizontal elevation changes.

ii. Create a horizontal emphasis to visually break up structures through the use of trim or other elements; by adding awnings, eaves or other ornamentations; by using a combination of complementary colors; and through use of landscaping.

iii. Vary the heights and setbacks of buildings to increase the visibility of anchor stores and individual tenants and contribute to the overall design of the buildings.

iv. Buildings located on block corners should be more substantial, larger, and more ornate than mid-block buildings.

v. Entries, roof overhangs, display windows, awnings, arcades, and outdoor seating areas should all be complementary to the building design to create inviting spaces.

vi. Vary the use of materials and colors, roof planes, and setbacks, as well as architectural elements to help reduce building mass and bulk.

vii. Use significant base materials and cornice or molding elements to anchor the building to the ground plane.

viii. Incorporate permanent shading devices such as awnings and canopies on south-facing facades to be aesthetically pleasing and assist in cooling the building during the summer months.

ix. In the CR and MU areas, all sides of a building should receive appropriate enhancement through details, fenestration, and architectural elements, landscape treatments, and accent lighting.

Commercial Design Guidelines: Roof Form

i. Commercial centers should have a combination of roof styles so as to enhance the architectural character and improve the visual interest of the building.

ii. Setbacks and tenant spaces can be articulated by accentuating roof planes and pitches.

iii. Flat roofs should incorporate architectural elements such as cornices or moldings to add interest and character to the building.

iv. Roof features and details, such as exposed eaves, help create character and complement the architectural style of the buildings.

v. Roof colors should be soft earth tones to minimize reflective glare and visual impacts.

vi. Rooftop solar panels should be incorporated into the design of the building when feasible. If not feasible at the time of construction, the building should be designed to enable future solar installations.

Commercial Design Guidelines: Windows, Doors, and Entries

i. The ground floor should have adequate (close to 75%) transparency on the façade.

ii. Entries and doors should be articulated to help orient pedestrian traffic.

iii. Entries should provide protective coverings such as awnings, arcades, and roof overhangs.

iv. Walls, signage, paving, and planting should be incorporated into a well-designed entry into the project site to visually link the site entry to the buildings.

v. Entry and edge features such as ornamental landscaping, open space areas, natural and water features, architectural monuments, and enhanced paving should all be considered when designing the project entry.

Commercial Design Guidelines: Materials and Colors

i. When adjacent to residential neighborhoods, materials and colors should be compatible with the surrounding residential neighborhoods, but should also be unique and distinctive in style and character.

ii. Accent materials such as brick, stone, and wood should be used to emphasize architectural details.

iii. Durable materials should be used for all buildings, paving, signage, and landscaping.

iv. Darker and bold materials and colors should be used on the base of buildings with lighter colors and materials on top.

v. Material changes should occur at intersecting planes, preferably at inside corners of changing wall planes or where architectural elements intersect.

vi. Large areas of intense, light colors should be avoided. Subdued colors usually work best for overall building color, while bright or accent colors are typically appropriate for trim, windows, doors and key architectural elements.

vii. Buildings should keep a balanced color palette between base colors and “brighter” or “darker” accent colors on each building.

Commercial Design Guidelines: Landscape and Public Spaces

i. Design of public spaces should incorporate space for public gatherings and smaller, intimate meeting areas.

ii. Appropriate pedestrian furniture, such as seating, lighting, water features, and/or public art should provide a safe, friendly, and comfortable environment.

iii. For buildings located on street frontages, portions of buildings may be set back from the sidewalk creating alcoves for plazas, entry nooks, and outdoor cafe seating.

iv. Sidewalks should incorporate tree wells or planters to provide shade and an aesthetically pleasing pathway.

v. One trash receptacle should be provided for every 100 linear feet of store front and should be compatible with the architecture and design of the buildings.

vi. Planting should be used to screen from public view areas such as trash enclosures, parking areas, storage areas, loading areas, public utilities, and mechanical equipment.

vii. Avoid large monument signs and electronic message signs.

Commercial Design Guidelines: Lighting

i. Light fixtures should complement the character and style of adjacent neighborhoods.

ii. Spotlighting or glare from any site lighting should be shielded from adjacent properties and directed at a specific object or target area. Exposed bulbs should not be used. Cut-off lighting is preferred (refer to the Land Use Ordinance standards for exterior lighting).

iii. Lighting should be incorporated into the landscaping and theme of buildings.

iv. Fixtures should enhance the creative style and theme of the project.

v. Use night lighting innovatively to add to the character of a site, while minimizing light and glare (i.e. lighting of footpaths, water elements, landscape and buildings).

b) **Commercial Service (CS) – Business Park Sites.** For properties in the Commercial Service (CS) land use areas that are intended to be developed with business parks, as described in Chapter 3, property owners should consider applying for a pre-planned Conditional Use Permit that would enable business development to occur in a timely manner (see Population and Economy Implementing Program, PEIP-1).

c) **Residential Multi-Family (MFR).** Design multi-family development to be compatible with surrounding single family residential development in form and architectural character. Examples of such multi-family development are shown below.

Multi-family development can be designed to fit in and be compatible with surrounding single family homes.

d) **Residential Single Family (RSF).** Projects on sites five acres or greater should provide a mix of lot sizes and housing types integrated throughout the project.

9.7 Shandon Energy and Water Conservation Guidelines

The following guidelines apply throughout the area addressed by this Plan:

a) Install alternative energy equipment and devices such as solar thermal heating.

b) Integrate, where feasible, alternative energy mechanical equipment and accessories within roofing materials and/or blend them with a structure's architectural form.

c) Pre-wire commercial and residential development for rooftop photovoltaic (PV) panels or other advanced technology.

d) Employ passive solar design and natural daylighting techniques in the design and construction of buildings.

e) On south-facing walls, provide surfaces and windows that add significant thermal mass, with proper ventilation, to control and distribute energy throughout structures.

f) Use evergreen trees, where appropriate, to protect buildings from winter winds, deciduous shade trees on the east and west sides of buildings, and low shrubbery immediately south of a home to maximize passive solar performance.

g) Use energy-saving landscaping around buildings and in parking lots to reduce solar gain in summer and allow solar gain in winter.

h) Use building materials, components, and systems found locally or regionally to reduce energy use, emissions and transportation costs.

i) Use non-toxic building products (e.g. formaldehyde-free insulation, low Volatile Organic Compounds [VOC] paints, etc.).

j) In new buildings, use the lowest water-using or waterless plumbing fixtures, implement water saving practices, and install greywater recycling systems.

Table 9.1: Applicability of EIR Mitigation Measures

The following table lists mitigation measures from the *Environmental Impact Report for the Shandon Community Plan Update and San Juan Village (Fallingstar I Project)*. New development shall comply with these mitigation measures as shown in the table, and the measures shall have the same effect as standards. For each mitigation measure, the table identifies the type of development project for which the measure is required, for example, new land divisions and projects requiring discretionary permits, or projects within a certain Master Plan Area.

Table 9.1: Applicability of EIR Mitigation Measures[1]							
EIR Mitigation Measure[1]	New Development (including ministerial permits)	Land Divisions and Discretionary Permits	Land Divisions and Discretionary Permits-Residential	New Commercial Development	Land Divisions in Master Plan Areas[2]	Fallingstar Master Plan Area[3]	Infrastructure and Recreational Facilities
AES-1 (a)			X				
AES-1(b) (see standards in LUO Ch. 22.110.060.C and D)				X			
AES-1(c), (d)					X		
AES1-(e),(g)					X		X
AES-1(f)[4]							
AES-3(a), (b)		X					
AES-3(c)		X					X
AG-1(a) (see Ch. 4 programs)							
AG-1(b), (c)					X Peck, Halpin		X
AG-2(a),(b)		X					
AG-2(c) (implemented through Ord. No. 2050-Right-to-Farm)	X						
AQ-1(a)-(d),(f),(g)[5]		X					
AQ-1(e)		X					
AQ-3(a)				X			
AQ-4(a)[4]							
BIO-1(a),(b) (see standards in LUO Section 22.110.030.A.5.b)	X						
BIO-1(c),(d),(e),(f), (g), (h)[6]		X					
BIO-3(a),(b)[6]		X					
BIO-3(c)[6,7]	X						
BIO-3(d), (e), (f), (g), (h), (i), (j), (k), (l), (m), (n), (o), (p), (q)[6]		X					
BIO-3(r)		X					X

1. See EIR mitigation measures listed in Appendix D of this Plan.
2. These mitigation measures are specific to the Master Plan Area(s). If the measures are applicable to only some Master Plan Area(s), those areas are shown in the cell. These mitigation measures are in addition to all other applicable mitigation measures in this table.
3. These mitigation measures are specific to the Fallingstar Master Plan Area and are in addition to all other applicable mitigation measures in this table.
4. The mitigation measure(s) apply to development of sewer treatment plant.
5. Applies to projects that exceed APCD construction emissions thresholds.
6. Mitigation measures BIO-1(c), (g), BIO-3(a),(b),(d) through (j), (l),(o),(p),(q) do not apply to "infill parcels" mapped in Appendix D.
7. Refer to the Shandon Community Plan Habitat Conservation Plan (HCP) when approved and the standards in LUO Section 22.110.030.
8. Applies to land divisions and discretionary permits involving grading, trenching, or ground disturbance.
9. This mitigation measure will likely not apply, as the area within 200 feet of the landslide area mapped in Figure 4.7-1 of the Final EIR is within an area to be protected for habitat or an area outside of the URL in the Agriculture land use category.
10. These mitigation measures apply to new residential development in specified noise-impacted areas.
11. These mitigation measures apply to new mixed-use development.
12. This mitigation measure applies in the event that groundwater is encountered during grading or construction.
13. This mitigation measure applies to development of Commercial Service site outside of the URL: septic site and leachfield site plan and percolation tests.

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Table 9.1: Applicability of EIR Mitigation Measures[1]							
EIR Mitigation Measure[1]	New Development (including ministerial permits)	Land Divisions and Discretionary Permits	Land Divisions and Discretionary Permits-Residential	New Commercial Development	Land Divisions in Master Plan Areas[2]	Fallingstar Master Plan Area[3]	Infrastructure and Recreational Facilities
CR-1(a) (covered by: Ch. 4 policy, COSE Policies CR3.1, CR4.2)		X					
CR-1(b), 1st part		X					
CR-1(b) 2nd part (see Ch. 4 programs)							
CR-1(c)[8]		X					
CR-1(d)		X					X
CR-1(e),(f)					X Fallingstar		
CR-2(a)	X						
CR-2(b)					X Fallingstar	X	
D-2(a),(b)		X					
G-2(a),(b)	X						
G-3(a)[9]	X						
N-1(a)		X					
N-2(a)					X Fallingstar Peck		
N-2(b),(c)[10] (comply with Noise Element)	X						
N-2(d),(e), (f)[11]				X			
S-1(a)		X					
S-1(b)[12]	X						
S-2(a)	X						
T-1(a) (see Ch. 8)							
T-1(b) (see Ch. 8 programs)							
T-1(c),(d),(e) (see standards in LUO Ch. 22.110.040.C.2.h and 22.110.060.A.8 and 18.i and 18.j)	X						

1. See EIR mitigation measures listed in Appendix D of this Plan.
2. These mitigation measures are specific to the Master Plan Area(s). If the measures are applicable to only some Master Plan Area(s), those areas are shown in the cell. These mitigation measures are in addition to all other applicable mitigation measures in this table.
3. These mitigation measures are specific to the Fallingstar Master Plan Area and are in addition to all other applicable mitigation measures in this table.
4. The mitigation measure(s) apply to development of sewer treatment plant.
5. Applies to projects that exceed APCD construction emissions thresholds
6. Mitigation measures BIO-1(c), (g), BIO-3(a),(b),(d) through (j), (l),(o),(p),(q) do not apply to "infill parcels" mapped in Appendix D.
7. Refer to the Shandon Community Plan Habitat Conservation Plan (HCP) when approved and the standards in LUO Section 22.110.030.
8. Applies to land divisions and discretionary permits involving grading, trenching, or ground disturbance
9. This mitigation measure will likely not apply, as the area within 200 feet of the landslide area mapped in Figure 4.7-1 of the Final EIR is within an area to be protected for habitat or an area outside of the URL in the Agriculture land use category.
10. These mitigation measures apply to new residential development in specified noise-impacted areas.
11. These mitigation measures apply to new mixed-use development.
12. This mitigation measure applies in the event that groundwater is encountered during grading or construction
13. This mitigation measure applies to development of Commercial Service site outside of the URL: septic site and leachfield site plan and percolation tests.

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Table 9.1: Applicability of EIR Mitigation Measures[1]							
EIR Mitigation Measure[1]	New Development (including ministerial permits)	Land Divisions and Discretionary Permits	Land Divisions and Discretionary Permits-Residential	New Commercial Development	Land Divisions in Master Plan Areas[2]	Fallingstar Master Plan Area[3]	Infrastructure and Recreational Facilities
T-1(f),(g) (see standards in LUO Ch. 22.110.060.B)						X	
T-4(a)		X					
W-1(a) (see standards in LUO Section 22.110.060.A.6)	X						
W-1(b) (see Ch. 7 programs, standards in LUO Chapter 22.110.A.6)		X					
W-1(c) (see standards in LUO Section 22.110.060.A.5)	X						
W-1 (d)[14] (see standards in LUO Ch. 22.110)							
W-2(a) (see Ch. 7 programs, standards in LUO Section 22.110.060)					X		
W-3(a)[4]							
W-3(b)[13]							

1. See EIR mitigation measures listed in Appendix D of this Plan.
2. These mitigation measures are specific to the Master Plan Area(s). If the measures are applicable to only some Master Plan Area(s), those areas are shown in the cell. These mitigation measures are in addition to all other applicable mitigation measures in this table.
3. These mitigation measures are specific to the Fallingstar Master Plan Area and are in addition to all other applicable mitigation measures in this table.
4. The mitigation measure(s) apply to development of sewer treatment plant.
5. Applies to projects that exceed APCD construction emissions thresholds
6. Mitigation measures BIO-1(c), (g), BIO-3(a),(b),(d) through (j), (l),(o),(p),(q) do not apply to “infill parcels” mapped in Appendix D.
7. Refer to the Shandon Community Plan Habitat Conservation Plan (HCP) when approved and the standards in LUO Section 22.110.030.
8. Applies to land divisions and discretionary permits involving grading, trenching, or ground disturbance
9. This mitigation measure will likely not apply, as the area within 200 feet of the landslide area mapped in Figure 4.7-1 of the Final EIR is within an area to be protected for habitat or an area outside of the URL in the Agriculture land use category.
10. These mitigation measures apply to new residential development in specified noise-impacted areas.
11. These mitigation measures apply to new mixed-use development.
12. This mitigation measure applies in the event that groundwater is encountered during grading or construction
13. This mitigation measure applies to development of Commercial Service site outside of the URL: septic site and leachfield site plan and percolation tests.
14. This mitigation measures applies to the following new development: 1) development resulting from new land divisions, 2) land use permits that result in greater than four (4) dwelling units, 3) development of more than 9,999 square feet of floor area for uses listed under the industry, manufacturing and processing land use group, 4) development of more than 2,499 square feet of floor area for uses listed under all other non-residential use groups.

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9.8 Implementation Programs

The Shandon Community Plan includes Implementation Programs to identify responsibility for ensuring comprehensive implementation of the Community Plan.

Table 9.2: Program Implementation Summary

SECTION	IMPLEMENTATION PROGRAM	RESPONSIBLE DEPARTMENT OR AGENCY	PRIORITY	TIMEFRAME TO START	POSSIBLE FUNDING SOURCES
2.4	**Population and Economy Implementing Programs**				
PEIP-1	Targeted marketing of key industries	PB	High	2012	Grant, DB
PEIP-2	Promote identity for commercial areas	PB	Med	2015	GF
PEIP-3	Internships and mentoring for high school students	SCOE, SJUSD, CC, Cal Poly	Med	2015	AB, Grant
PEIP-4	Utilize local products and services	PB	Med	2013	GF
PEIP-5	Develop farmers' market	SCFMA, AG	Low	2015	DB, Pri
PEIP-6	Promote and facilitate community events	PB	Med	2015	GF, Pri
PEIP-7	Explore financing options for existing businesses	PB	Low	2014	Grant

AB	**Agency Budget**	**PB**	**Planning & Building**
AC	**Agriculture Commissioner**	**PH**	**Public Health**
CC	**Cuesta College**	**PO**	**Property Owner**
CF	**Cal Fire**	**Pri**	**Private Funding**
CP	**County Parks**	**PW**	**Public Works**
CS	**County Sheriff**	**RTA**	**Regional Transportation Authority**
CT	**Caltrans**	**SCFMA**	**SLO County Farmers' Market Assoc.**
D	**Developer**	**SCL**	**SLO County Library**
DB	**Department Budget**	**SCOE**	**SLO County Office of Education**
EH	**Environmental Health**	**SJUSD**	**Shandon Joint Unified School District**
GF	**General Fund**	**SLOCOG**	**SLO Council of Government**
GS	**General Services**	**SS**	**Social Services**
OES	**Office of Emergency Services**		

Table 9.2: Program Implementation Summary					
SECTION	IMPLEMENTATION PROGRAM	RESPONSIBLE DEPARTMENT OR AGENCY	PRIORITY	TIMEFRAME TO START	POSSIBLE FUNDING SOURCES
PEIP-8	Periodic community business surveys	PB	Med	2013	DB
PEIP-9	Explore adjustments to development standards for site efficiency	PB	Med	2013	DB
PEIP-10	Promote public transportation	PB, PW, RTA	Med	2013	Grant, DB
PEIP-11	Encourage non-motorized transport within business areas	PB	Low	2013	DB
PEIP-12	Encourage infrastructure improvements to attract private investment	PB, PW	Med	2013	DB
PEIP-13	Develop a specific plan or entitlement to expedite permit processes for commercial development	PB	High	2013	Grant, DB
3.9 Land Use and Neighborhood Design Implementing Programs					
LUNDIP-1	Identify grants to help redevelop single family residences into live-work arrangements.	PB	Low	2013	DB
LUNDIP-2	Coordinate with Caltrans to relocate maintenance yard on Centre Street	PB	Med	2014	DB, AB
LUNDIP-3	Downtown enhancement plan	PB, PW	Med	2013	DB, Grant

AB	Agency Budget	PB	Planning & Building
AC	Agriculture Commissioner	PH	Public Health
CC	Cuesta College	PO	Property Owner
CF	Cal Fire	Pri	Private Funding
CP	County Parks	PW	Public Works
CS	County Sheriff	RTA	Regional Transportation Authority
CT	Caltrans	SCFMA	SLO County Farmers' Market Assoc.
D	Developer	SCL	SLO County Library
DB	Department Budget	SCOE	SLO County Office of Education
EH	Environmental Health	SJUSD	Shandon Joint Unified School District
GF	General Fund	SLOCOG	SLO Council of Government
GS	General Services	SS	Social Services
OES	Office of Emergency Services		

Table 9.2: Program Implementation Summary

SECTION	IMPLEMENTATION PROGRAM	RESPONSIBLE DEPARTMENT OR AGENCY	PRIORITY	TIMEFRAME TO START	POSSIBLE FUNDING SOURCES
4.3 Natural Resources Implementing Programs					
NRIP-1	Ensure long-term open space is established where appropriate	PB	Med	2014	DB, AB, Pri, Grant
NRIP-2	Develop Habitat Conservation Plan for critical species	D, PB	Essential	Underway	Pri
NRIP-3	Work with the community to maintain viable agricultural land	PO, AC, PB	High	2012	DB, Pri
NRIP-4	Pursue additional State Water	PW, PB	High	2012	DB
NRIP-5	Conduct water conservation workshops	PB, PW	Med	2012	DB, Grant
NRIP-6	Toilet retrofit	PB, PW	Med	2014	DB
NRIP-7	Explore a water conservation rate structure for CSA-16	PW	Med	2013	DB
4.6 Cultural Resources Implementing Programs					
NCIP-1	Historical resources inventory	PB	Med	2014	DB

AB	**Agency Budget**	**PB**	**Planning & Building**
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Table 9.2: Program Implementation Summary

SECTION	IMPLEMENTATION PROGRAM	RESPONSIBLE DEPARTMENT OR AGENCY	PRIORITY	TIMEFRAME TO START	POSSIBLE FUNDING SOURCES
4.9 Energy Conservation Implementing Programs					
ECIP-1	Provide energy conservation workshops	PB, APCD	High	2012	DB, AB, Grant
ECIP-2	Establish a community tree planting program	PB, PW, GS	Med	2013	Grant
ECIP-3	Evaluate the use of solar power for sewer plant	PB, PW, D	Med	2012	DB, Pri
ECIP-4	Develop recycled water system	PB, PW	High	2012	GF, Grant
ECIP-5	Pursue a communitywide solar energy system.	PB, PO	High	2012	DB, Grant
5.12 Transportation and Circulation Implementing Programs					
TCIP-1	Update road classifications for major roads as necessary	PB ,PW	Low	2015	DB
TCIP-2	Work with the community to develop trails	PB, PW, GS, D	High	2014	DB, Grant, D
TCIP-3	Pursue funding for circulation mitigation measures	PW, PB, SLOCOG, D	High	2012	DB, GF, D

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SECTION	IMPLEMENTATION PROGRAM	RESPONSIBLE DEPARTMENT OR AGENCY	PRIORITY	TIMEFRAME TO START	POSSIBLE FUNDING SOURCES
TCIP-4	Develop transit plan and improve access to transit	PB, SLOCOG, RTA	Med	2015	Grant, GF
6.1.2 School Implementing Programs					
SIP-1	Establish a "safe routes to school" program	SJUSD, PB, SO, PW	Med	2012	Grant
SIP-2	Assist to develop programs that serve all needs and locations in the community	PB, SJUSD	Low	2014	DB, AB
6.2.2 Parks and Recreation Implementing Programs					
PRIP-1	Expand or upgrade Crawford W. Clarke Memorial Park	PB, CP	Med	2016	GF, D
PRIP-2	Promote shared sites with schools	CP, SJUSD	Med	2013	GF
PRIP-3	Improve maintenance of parks and recreation facilities	CP	Med	2012	DB, D
PRIP-4	Identify opportunities for trail easements	PB, CP	Low	2014	Grant, GF, Pri

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GF	General Fund
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OES	Office of Emergency Services
PB	Planning & Building
PH	Public Health
PO	Property Owner
Pri	Private Funding
PW	Public Works
RTA	Regional Transportation Authority
SCFMA	SLO County Farmers' Market Assoc.
SCL	SLO County Library
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Table 9.2: Program Implementation Summary

SECTION	IMPLEMENTATION PROGRAM	RESPONSIBLE DEPARTMENT OR AGENCY	PRIORITY	TIMEFRAME TO START	POSSIBLE FUNDING SOURCES
6.3.2 Fire Protection and Emergency Medical Services Implementing Programs					
FPEIP-1	Disseminate emergency preparedness info.	CF, OES	Med	2012	AB, DB
FPEIP-2	Establish a health clinic	PB, PH	High	2012	DB, Grant
FPEIP-3	Identify funding for additional fire and emergency personnel	PB, CF	Med	2012	DB
FPEIP-4	Continue fire safety outreach	CF	High	Ongoing	DB
6.4.2 Law Enforcement Implementing Programs					
LEIP-1	Continue crime prevention and safety outreach	CS	High	2012	DB
LEIP-2	Resident deputy	CS	High	2012	DB, GF, Grant
6.5.2 Solid Waste Implementing Programs					
SWIP-1	Continue waste reduction education	PW, EH	Low	2012	DB
SWIP-2	Obtain public input regarding waste program effectiveness	PB	Low	2012	DB

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Table 9.2: Program Implementation Summary

SECTION	IMPLEMENTATION PROGRAM	RESPONSIBLE DEPARTMENT OR AGENCY	PRIORITY	TIMEFRAME TO START	POSSIBLE FUNDING SOURCES
6.6.2 Community Facilities Implementing Programs					
CFIP-1	Support funding for youth programs and facilities	CP, PH, SS	Med	2012	GF, Grant
CFIP-2	Incentivize development of cultural facilities	PB	Low	2017	DB
CFIP-3	Establish a health clinic	PB, PH	High	2012	Grant, DB
CFIP-4	Identify site for community library	GS, PB	Med	2013	DB, Grant
CFIP-5	Explore reducing library fees	GS	Med	2013	DB
7.1.2 Water System Implementing Programs					
WSIP-1	Identify financing for water system upgrades for existing neighborhoods	PB, PW	Med	2012	DB, Grant
WSIP-2	CSA-16 Water Master Plan Update	PW	High	2012	D,PW
WSIP-3	CSA-16 fee program for new State water	PW	High	2012	PW, D
7.2.2 Wastewater Implementing Programs					
WWIP-1	Identify financing for extension of wastewater system to existing neighborhoods	PB, PW	Med	2012	DB, Grant

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SECTION	IMPLEMENTATION PROGRAM	RESPONSIBLE DEPARTMENT OR AGENCY	PRIORITY	TIMEFRAME TO START	POSSIBLE FUNDING SOURCES
WWIP-2	Prepare wastewater and groundwater educational materials	PW	Low	2014	DB
7.3.2 Stormwater Drainage Implementing Programs					
SDIP-1	Develop Stormwater System Plan	PW, PB	High	2013	Grant, GF
SDIP-2	Finance drainage system improvements	PB, PW	High	2014	Grant, GF
7.4.2 Flood Management Implementing Programs					
FMIP-1	Process updated 100-year flood elevations with FEMA.	PW, D	Essential	2012	DB, Pri
7.5.6 Utilities Implementing Programs					
UIP-1	Identify programs to reduce energy costs	PB	Med	2012	DB
UIP-2	Coordinate with utility companies to underground major utility lines	PB, PW	Low	2017	DB
UIP-4	Pursue communitywide solar energy system	PB, PW, CSA-16	Med	2013	DB, Grant

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SECTION	IMPLEMENTATION PROGRAM	RESPONSIBLE DEPARTMENT OR AGENCY	PRIORITY	TIMEFRAME TO START	POSSIBLE FUNDING SOURCES
8.13 Public Facilities Funding and Financing Implementing Programs					
PFFPIP-1	Capital Improvement Plan	PW, CSA-16	High	2012	DB
PFFPIP-2	Master drainage plan	PW	High	2012	DB, Grant
PFFPIP-3	Seek grants for public facilities	PB, PW	High	2012	DB
PFFPIP-4	Feasibility study for use of the California Public Infrastructure Bank	PB, PW	High	2013	DB, Grant
PFFPIP-5	Funding for grade-separated access to State Route 46	PW, SLOCOG, CT	High	2013	Grant, Tax, PO
PFFPIP-6	Fee program for off-site traffic improvements in the City of Paso Robles	PW, SLOCOG, CT, City of Paso Robles	High	2012	D

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Glossary

Associated costs – The costs that represent a developer's or a group's "fair share" for the cost of public facilities based on a development's impact to those public facilities.

Backbone infrastructure – The larger, shared distribution, collection and processing elements of the circulation, water, wastewater, and drainage systems that will be used by the community as a whole or multiple neighborhoods. For example, a sewer or water main running through Centre Street would be part of the backbone infrastructure; whereas, a water line in Second Street or another local street within the Fallingstar Master Plan Area would not be part of the backbone infrastructure.

Best Management Practices (BMPs) – A technique, process, activity, or structure used by project designers, construction professionals, or property owners that are considered a preferred way to achieve a specific result or results. BMPs are typically used to reduce the pollutant content of a storm-water discharge.

Bio-swales – Drainage conveyance systems that include landscape elements designed to remove silt and pollution from surface runoff water.

Buildout - Buildout is an estimate of the ultimate level of development (e.g., number of dwelling units and square-footage of commercial development) and accompanying population that can be expected according to the land uses envisioned by this Plan, including any special limitations on density or intensity of development. The estimated buildout may not actually be achieved due to such factors as physical or environmental development constraints on certain properties and market demand. The buildout population estimate of this Plan is 5,260.

Commercial node – A commercial area where several businesses would be located in proximity to one another and that encourages social activity. Commercial nodes could consist of businesses that are centered on a downtown intersection or adjoining blocks, businesses lining a plaza or other open area, or businesses adjacent to a civic building such as a post office.

Condominium - Individual ownership of a dwelling unit within a multi-family project with common ownership in shared areas. These may be attached or detached units. Condominiums are defined in Section 1351 of the California Civil Code.

Federal Incidental Take permit - A permit issued under Section 10 of the Federal Endangered Species Act (ESA) to private, non-federal entities undertaking otherwise lawful projects that might result in the take of an endangered or threatened species. "Take" is defined by the ESA as activities that harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect any threatened or endangered species. Harm may include significant habitat modification that actually kills or injures a listed species through impairment of essential behavior (e.g., nesting or reproduction).

Floor Area Ratio (FAR) – The ratio of building space to land area. This may be used as an indicator of the intensity of development on a parcel. For example, a one-acre lot with an allowed FAR of 0.5 could have up to 21,780 square feet of floor area. The allowed floor area could be spread over multiple stories in a single building or in multiple buildings.

Forbs – Generic name for herbaceous plants that are commonly associated with grasslands and that have a similar growth form, but are not grass species.

Garden apartments - Low-rise apartment buildings with landscaped grounds that are often in a central open area.

Green technology – Technologies that are environmentally friendly, sustainable, or part of holistic approach to design, construction, and demolition that minimize a project's impact on the environment.

Guidelines – Guidelines are advisory, but are used in evaluating projects subject to discretionary review. They recommend features or techniques that help achieve a desired effect through a combination of ways rather than by fixed standard. However, alternative approaches that achieve the same or better results may also be used. Guidelines generally deal with design issues.

Habitat Conservation Plan (HCP) – A plan prepared under the Federal Endangered Species Act by non-federal parties wishing to obtain permits for the "incidental take" of threatened and endangered species. See Federal Incidental Take permit. For the Shandon area, an HCP would primarily cover the San Joaquin kit fox.

Half-plex (duplex) – Two dwellings in one building that have a common wall. Half-plex is the term usually used where each unit is owned separately.

Labor force - The labor force includes all people classified in the civilian labor force, plus members of the U.S. Armed Forces (people on active duty with the United States Army, Air Force, Navy, Marine Corps, or Coast Guard). The Civilian Labor Force consists of people classified as *employed* or *unemployed*. *Employed* includes all civilians 16 years old and over who were either (1) "at work" -- those who did any work at all during the reference week as paid employees, worked in their own business or profession, worked on their own farm, or worked 15 hours or more as unpaid workers on a family farm or in a family business; or (2) were "with a job but not at work" -- those who did not work during the reference week but had jobs or businesses from which they were temporarily absent due to illness, bad weather, industrial dispute, vacation, or other personal reasons. Excluded from the employed are people whose only activity consisted of work around the house or unpaid volunteer work for religious, charitable, and similar organizations; also excluded are people on active duty in the United States Armed Forces. The reference week is the calendar week preceding the date on which the respondents completed their questionnaires or were interviewed. This week may not be the same for all respondents. *Unemployed* includes all civilians 16 years old and over if they (1) were neither "at work" nor "with a job but not at work" during the reference week, and (2) were actively looking for work during the last 4 weeks, and (3) were available to accept a job. Also included as unemployed are civilians who did not work at all during the reference week, were waiting to be called back to a job from which they had been laid off, and were available for work except for temporary illness. *(Source: U.S. Census Bureau)*

Live-work arrangements – Arrangements in which a business owner or employee live on the same site as the business. See Mixed Use.

Low Impact Development (LID) - An innovative approach to stormwater management in which the basic principle is to design the built environment to remain a functioning part of an ecosystem rather than exist apart from it. LID's goal is to mimic a site's pre-development hydrology by using design techniques that infiltrate, filter, store, evaporate, and detain runoff close to its source.

Master Plan Areas – Distinct geographical areas within the Community Plan where the community is expected to grow. There are specific standards and guidelines for these areas. Please refer to Section 3.2.

Mixed Use – Development where residential uses occupy the same site together with commercial uses. In most cases, the dwellings are attached to or on the second floor above the commercial space.

Obligated costs - Costs that represent the "up-front" funding that project developers are required to pay to in order to initiate development.

Official Maps - Part III of the Land Use Element, the Official Maps are on file in the County Department of Planning and Building and depict land use categories (zoning), combining designations, and circulation. They show the land use categories and combining designations for each parcel of land in the county, and streets, roads and highways that are classified as arterials and collectors. Figures 3.1 and 5.1 of the Shandon Community Plan are generally consistent with the Official Maps; however, the Official Maps must be used to determine precisely what land use designations apply to particular properties.

Patio homes – Small, detached dwellings with a private, usable yard. See Figure 3.1.1

Pocket parks – Small parks, usually less than one acre, with limited active use areas that serve the immediate neighborhood. Pocket parks are commonly on the interior of a block.

Policies – Statements that represent the County's adopted position and guide decision-making. Policies are used for determining the consistency of a proposed discretionary land use, development or subdivision application with the Community Plan. Programs, standards and guidelines help implement policies.

Programs - Recommended actions, rather than mandatory requirements, that help implement the goals and policies of this Plan. A program may be initiated by the County or another agency or group. Since many recommended programs involve public expenditures or other funds, the initiation of programs will depend on the availability of funding.

Standards - Requirements that are primarily to be included in the design and evaluation of development projects and land divisions. They address special conditions and help provide consistency throughout the community or within a particular land use category or combining designation. Compliance with standards is mandatory.

Strategic Growth Principles – Principles listed in Framework for Planning in the Land Use Element of the County General Plan that facilitate strategic growth. Strategic growth is a compact, efficient and environmentally sensitive pattern of development that provides people with additional travel, housing and employment choices. It focuses future growth away from rural areas and limited resources, closer to existing and planned job centers and public facilities where sustainable resources are available.

Study Area – The Study Area is a geographic boundary of approximately 2,081 acres approved by the County Board of Supervisors, as recommended by the Shandon Advisory Council, for the purpose of developing the Shandon Community Plan. Figure 1.2 shows the Study Area boundary.

Townhouses – Attached dwellings in which, commonly, each unit is two stories.

Traffic calming – The introduction of physical features within and adjacent to the street system in order to help move traffic, reduce speeds, and help create a safer circulation environment. Traffic calming features may include changes in the texture or color of the driving surface, a geometrical change, such as a roundabout, and changes in vertical elements like street trees and buildings near sidewalks. These features may be in conjunction with traffic control elements (see definition below).

Traffic control elements – Regulatory elements in the street system, such as stop signs, signal lights, turning lanes, posted speed limits, crosswalks, and directional signage.

Urban Reserve Line (URL) - The URL is a boundary separating urban land uses from rural land uses. It is based upon the area needed to accommodate growth during the time frame of the Community Plan. The land within the URL is referred to as the Shandon Urban Area. The Shandon Urban Area Standards found in Section 22.110.060 of the Land Use Ordinance apply to land within the URL. Figure 1.2 shows the URL as it relates to the Study Area boundary. Figure 3.1 shows the urban land uses within the URL.

Value-to-lien ratio – The appraised value of an improved parcel or parcels of land (with infrastructure but without structures) as compared to the required bond amount (lien) for the public facility being financed.

Waterless plumbing fixtures – A technology that allows urinals to operate without water.

Workforce housing - Housing that is affordable to workers earning up to 160 percent of average median income.

Appendices

A - Community Priorities for Shandon Development, March 7, 2007

B - Infrastructure and Utilities Technical Appendix

C - Shandon Master Tree List

D – EIR Mitigation Measures

E – Wood Rodgers Inc. Technical Memorandum, Shandon Community Plan Update, Draft Transportation Impact Fee Program

F - Background Maps – Contour Map and 2011 Assessor's Parcel Maps for Table 3.4

Appendix A

Community Priorities for Shandon Development

March 7, 2007

Members of the greater Shandon community have been meeting and discussing our collective vision of what we think any future development should encompass. There is substantial consensus that if development occurs in Shandon, whether it is a few houses or a larger development project, that all building should conform to or support the following criteria. We believe these priorities and values should be included in our General Plan update and in all subsequent specific plans.

DESIGN

- Cluster houses and apartments outside and around the central part of a village with the center consisting of a small commercial area, park, playground, or town square, or some combination of those uses. The community, through the Shandon Advisory Committee, should help determine which uses would become part of the village center.

- The General Plan and specific plans should forbid houses being built on long "strip" streets. This does not create the close knit neighborhoods we desire.

- Every development needs to provide walking and bike paths away from streets. These pedestrian and bike paths should interconnects between the separate developments to facilitate non motorized movement. These interconnections should be a part of the master plan.

- There should be a green belt, rather than large, tall urban type walls, to act as a buffer between development and agricultural areas. This should be accomplished by using open space, conservation easements, green space agreements, etc. These buffer areas should be created to assure the town will be limited to the size agreed upon by current residents.

- There should be no hillside nor hilltop development.

- Prohibit development in flood prone areas, including areas of potential erosion in a 100 year storm. Specific and substantial setbacks are needed from the San Juan, Estrella and Cholame rivers.

- Require percolation areas to reduce runoff and erosion and to recharge the aquifer. A systematic drainage system is needed for larger storm events.

- All utilities should be underground.

- All streets must be paved, with gutters and sidewalks.

- Natural gas needs to be extended and connected to every house.

- Street lights should be designed to limit light pollution and should be energy efficient. LED technology efficiency standards should be the guideline by which this component is measured.

- Commercial and residential buildings should be limited to a maximum height of two stories.

- The County should facilitate the development of a community supported architectural style to be followed throughout the town. Compliance should be assured by the Board of Supervisors giving the Shandon Advisory Committee substantial authority to determine compliance with the architectural standards.

- Require paleontological and archaeological work to precede ground disturbance and to continue during all ground work.

COMMUNITY NEEDS

- We agree that there should be enough development of houses to cover the costs of a sewer system for entire community. The number of houses necessary to do this should be determined by an independent, outside consultant.

- No development of any size should occur in Shandon without either a sewer system, or a contribution to a fund for the purpose of building a sewer system. No house or commercial building should be allowed to be built without including a sewer stub for future connection to a sewer. Larger developments must have sewer lines throughout the development, even if the houses are initially going to be on septic tanks.

- Limit housing numbers to capacity of the school system, including any additional construction bonding capacity.

- Every development should include the establishment of a community association to help monitor common areas and compliance with applicable laws and regulations.

- Commercial services should mostly be located around the existing town center. Exceptions (such as in a new village center) should be subject to the concurrence of the Shandon Advisory Committee.

- The General Plan should create the infrastructure for a Sheriff substation or resident deputy.

- Ban motor vehicle use of the river bed and create equestrian and hiking pathways if they can be compatible with a Kit Fox corridor and private property rights. Create an alternative motorcycle park out of river bed. The County should create a fund to acquire river bottom land to be placed in an easement, park, or other enforceable protected status.

- Create a developer and community supported fund to upgrade community unpaved streets.

TRANSPORTATION

- The General Plan should recommend the realignment of Highway 41 to skirt Shandon and join Hwy 46 west of town.

- Limit housing to numbers that will not create traffic problems in town or at McMillan Canyon Road.

- Improve downtown parking to avoid parked vehicles interfering with traffic flow.

- Require developers to help fund improved Highway 46 access at McMillan Canyon Road. When Highway 46 is widened to four lanes, there will need to be an overpass or other safety improvement to allow Shandon residents to safely cross the east bound traffic and merge with the west bound traffic.

- Require developers to help fund a wider highway 41 bridge over the San Juan River to accommodate separated pedestrian and bike lanes.

- Require road setbacks to ensure that existing local rural roads can be adequately widened to accommodate increased traffic.

Appendix B

Infrastructure and Utilities

Technical Appendix

7.1 Water Resources

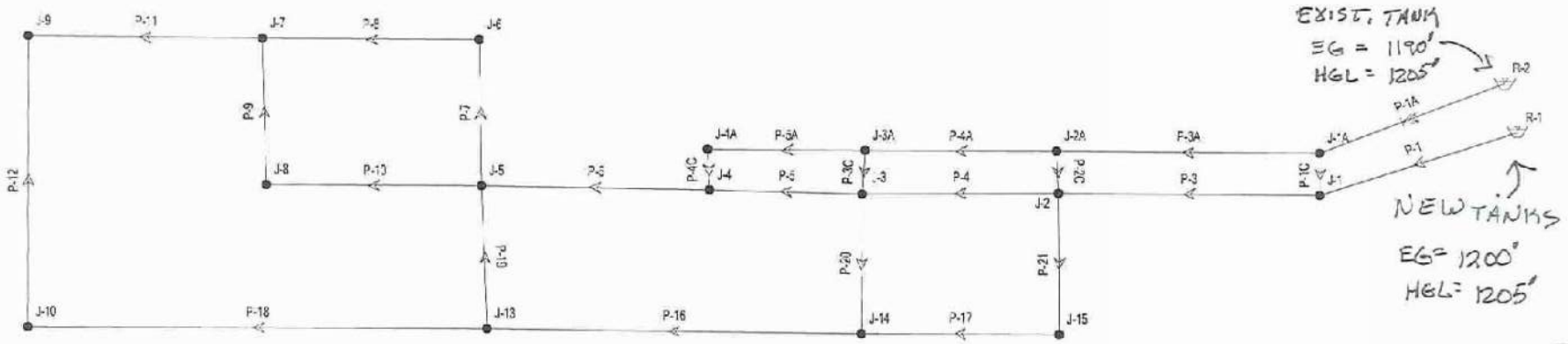
The pipe sizes for the backbone system were designed using California Code of Regulations, Title 22 requirements as outlined in the CSA 16 Water System Master Plan. These requirements are as follows: system pressures should not fall below 20 psi for maximum day demands plus fire demands, and should not fall below 30 psi under peak hour demands. There are three types of fire flow requirements in the 20 year plan area; schools require a fire flow of 2,750 gpm for two hours, commercial development requires a fire flow of 2,000 gpm for two hours, and residential areas require a fire flow of 1,000 gpm for two hours.

Load calculations were based on a population of 8,200 and 3.66 residents per household or approximately 2,240 households. The average yearly consumption per household was assumed to be 0.5 acre-ft/household/year. The average daily demand is estimated to be 1.0 million gallons per day (mgd), with a maximum daily demand estimated at 2.5 mgd, with a peak hour demand of 208,000 gph (5.0 mgd).

The loading for the water system analysis model was estimated based on population distribution considering the Land Use Plan for 8,200 persons and the Shandon Master Plan Areas (Figure 3.2)

The storage capacity requirements for the buildout population were calculated using the criteria outlined in section 5.3 of the CSA 16 Water System Master Plan. The storage capacity needs to meet three volume requirements: equalization storage, emergency storage, and fire storage. Equalization storage is the storage required to meet peak hour demands in excess of available supply for a 14-hour duration. Emergency storage is the volume of water required to sustain sanitary needs (50 gpd) for three days in the event an emergency cuts off the normal water supply. Fire storage is the storage required to meet the highest fire-flow demand in the CSA 16 water system. The maximum fire demand would be 2,750 gpm for two hours for the existing school building.

Scenario: PHD



Scenario: PHD
Steady State Analysis
Junction Report

Label	Elevation (ft)	Demand (Calc'd) (gpm)	Calc'd HGL (ft)	Pressure (psi)	Zone	Type	Base Flow (gpm)	Pattern
J-1	1,055.00	0.00	1,186.52	56.90	Zone	Demand	0.00	Fixed
J-2	1,045.00	466.00	1,174.20	55.90	Zone	Demand	466.00	Fixed
J-3	1,040.00	210.00	1,166.59	54.77	Zone	Demand	210.00	Fixed
J-4	1,035.00	170.00	1,163.45	55.57	Zone	Demand	170.00	Fixed
J-5	1,040.00	360.00	1,159.95	51.90	Zone	Demand	360.00	Fixed
J-6	1,035.00	406.00	1,157.23	52.88	Zone	Demand	406.00	Fixed
J-7	1,050.00	256.00	1,155.50	45.65	Zone	Demand	256.00	Fixed
J-8	1,065.00	106.00	1,155.94	39.34	Zone	Demand	106.00	Fixed
J-9	1,055.00	296.00	1,154.03	42.85	Zone	Demand	296.00	Fixed
J-10	1,065.00	170.00	1,154.38	38.67	Zone	Demand	170.00	Fixed
J-13	1,045.00	320.00	1,159.98	49.74	Zone	Demand	320.00	Fixed
J-14	1,045.00	256.00	1,163.74	51.37	Zone	Demand	256.00	Fixed
J-15	1,060.00	466.00	1,165.59	45.68	Zone	Demand	466.00	Fixed
J-1A	1,055.00	0.00	1,186.52	56.90	Zone	Demand	0.00	Fixed
J-2A	1,045.00	0.00	1,174.20	55.90	Zone	Demand	0.00	Fixed
J-3A	1,040.00	0.00	1,166.59	54.77	Zone	Demand	0.00	Fixed
J-4A	1,035.00	0.00	1,163.46	55.58	Zone	Demand	0.00	Fixed

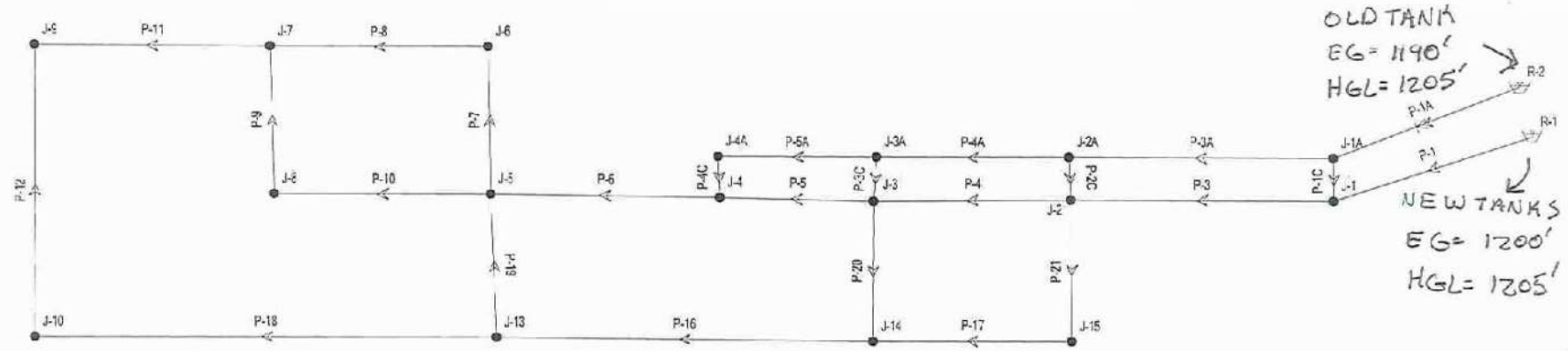
Scenario: PHD
Steady State Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Mat'l	Mannings n	Check Valve?	Velocity (ft/s)	Control Status	Discharge (gpm)	US Structure HGL (ft)	DS/HGL (ft)	Pressure Pipe Headloss (ft)	Headloss Gradient (ft/1000ft)
P-1	1,200.00	12.0	PVC	0.012	false	6.12	Open	2,156.06	1,205.00	1,186.52	18.48	15.40
P-3	800.00	12.0	PVC	0.012	false	6.12	Open	2,156.19	1,186.52	1,174.20	12.32	15.40
P-4	1,300.00	12.0	PVC	0.012	false	3.77	Open	1,329.02	1,174.20	1,166.59	7.61	5.85
P-5	1,200.00	12.0	PVC	0.012	false	2.52	Open	889.41	1,166.59	1,163.45	3.14	2.62
P-6	1,500.00	14.0	PVC	0.012	false	2.64	Open	1,265.62	1,163.45	1,159.95	3.50	2.33
P-7	600.00	10.0	PVC	0.012	false	2.94	Open	719.67	1,159.95	1,157.23	2.72	4.54
P-8	2,000.00	10.0	PVC	0.012	false	1.28	Open	313.67	1,157.23	1,155.50	1.72	0.86
P-9	600.00	8.0	PVC	0.012	false	1.01	Open	158.02	1,155.94	1,155.50	0.43	0.72
P-10	2,000.00	8.0	PVC	0.012	false	1.69	Open	264.02	1,159.95	1,155.94	4.01	2.01
P-11	1,100.00	8.0	PVC	0.012	false	1.38	Open	215.69	1,155.50	1,154.03	1.47	1.34
P-12	1,900.00	8.0	PVC	0.012	false	0.51	Open	-80.31	1,154.03	1,154.38	0.35	0.19
P-15	2,700.00	12.0	PVC	0.012	false	1.84	Open	648.38	1,163.74	1,159.98	3.76	1.39
P-17	,300.00	10.0	PVC	0.012	false	1.65	Open	-403.52	1,163.74	1,165.59	1.85	1.43
P-18	3,100.00	8.0	PVC	0.012	false	1.60	Open	250.31	1,159.98	1,154.38	5.59	1.80
P-19	1,300.00	12.0	PVC	0.012	false	0.22	Open	-78.07	1,159.95	1,159.98	0.03	0.02
P-20	1,300.00	10.0	PVC	0.012	false	2.05	Open	500.86	1,166.59	1,163.74	2.86	2.20
P-21	1,300.00	10.0	PVC	0.012	false	3.55	Open	869.52	1,174.20	1,165.59	8.61	6.62
P-3A	800.00	10.0	PVC	0.012	false	5.42	Open	1,325.81	1,186.52	1,174.20	12.32	15.40
P-4A	1,300.00	10.0	PVC	0.012	false	3.34	Open	817.47	1,174.20	1,166.59	7.61	5.85
P-1C	10.00	14.0	PVC	0.012	false	0.00	Open	0.13	1,186.52	1,186.52	0.00	0.00
P-2C	10.00	14.0	PVC	0.012	false	1.06	Open	508.35	1,174.20	1,174.20	0.00	0.38
P-3C	10.00	14.0	PVC	0.012	false	0.57	Open	271.26	1,166.59	1,166.59	0.00	0.11
P-5A	1,200.00	10.0	PVC	0.012	false	2.23	Open	546.21	1,166.59	1,163.46	3.14	2.61
P-4C	10.00	12.0	PVC	0.012	false	1.55	Open	546.21	1,163.46	1,163.45	0.01	0.99
P-1A	1,200.00	10.0	PVC	0.012	true	5.42	Open	1,325.94	1,205.00	1,186.52	18.48	15.40

Scenario: PHD
Steady State Analysis
Reservoir Report

Label	Elevation (ft)	Zone	Inflow (gpm)	Calculated Hydraulic Grade (ft)
R-1	1,205.00	Zone	2,156.06	1,205.00
R-2	1,205.00	Zone	1,325.94	1,205.00

Scenario: MDD



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Project Engineer: Greg Jaeger
WaterCAD v7.0 [07.00.061.00]
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Scenario: MDD
Fire Flow Analysis
Fire Flow Report

Label	Zone	Fire Flow Iterations	Fire Flow Balanced?	Satisfies Fire Flow Constraints?	Needed Fire Flow (gpm)	Min. Zone Pressure (psi)	Residual Pressure (psi)	Total Flow Needed (gpm)	Calculated Residual Pressure @ Total Flow Needed (psi)	Calculated Minimum Zone Pressure @ Total Flow Needed (psi)	Calculated Minimum Zone Junction @ Total Flow Needed	Total Flow Available (gpm)	Available Fire Flow (gpm)	Calculated Residual Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Junction
J-1	Zone	3	true	true	2,000.00	20.00	20.00	2,000.00	55.67	47.87	J-10	5,000.00	5,000.00	34.92	27.13	J-10
J-2	Zone	8	true	true	2,000.00	20.00	20.00	2,233.00	53.84	43.05	J-10	4,404.91	4,171.91	30.79	20.00	J-10
J-3	Zone	8	true	true	2,000.00	20.00	20.00	2,105.00	50.87	38.88	J-10	3,517.10	3,412.10	31.85	20.00	J-10
J-4	Zone	14	true	true	1,000.00	20.00	20.00	1,085.00	61.33	47.64	J-10	3,154.29	3,069.29	33.30	20.01	J-8
J-5	Zone	7	true	true	2,750.00	20.00	20.00	2,930.00	32.25	21.15	J-8	2,991.98	2,811.98	31.09	20.00	J-8
J-6	Zone	7	true	true	2,000.00	20.00	20.00	2,203.00	39.79	29.17	J-8	2,663.93	2,460.93	29.31	20.00	J-8
J-7	Zone	5	true	true	2,000.00	20.00	20.00	2,128.00	25.47	22.12	J-8	2,211.26	2,083.26	23.12	20.00	J-8
J-8	Zone	4	true	true	1,000.00	20.00	20.00	1,053.00	40.69	43.97	J-10	1,842.99	1,789.99	20.01	30.79	J-10
J-9	Zone	4	true	true	1,000.00	20.00	20.00	1,148.00	39.58	38.74	J-10	1,708.04	1,560.04	20.00	23.60	J-10
J-10	Zone	4	true	true	1,000.00	20.00	20.00	1,085.00	33.25	43.11	J-9	1,431.61	1,346.61	20.00	34.49	J-9
J-13	Zone	7	true	true	2,750.00	20.00	20.00	2,910.00	28.55	20.12	J-10	2,916.18	2,756.18	28.42	20.00	J-10
J-14	Zone	8	true	true	1,000.00	20.00	20.00	1,128.00	56.96	47.79	J-10	3,284.31	3,156.31	26.37	20.00	J-10
J-15	Zone	3	true	true	2,750.00	20.00	20.00	2,983.00	24.83	30.05	J-10	3,225.76	2,992.76	20.01	26.85	J-10
J-1A	Zone	3	true	true	2,000.00	20.00	20.00	2,000.00	55.66	47.87	J-10	5,000.00	5,000.00	34.90	27.13	J-10
J-2A	Zone	8	true	true	2,000.00	20.00	20.00	2,000.00	53.84	43.05	J-10	4,172.31	4,172.31	30.77	20.00	J-10
J-3A	Zone	14	true	true	2,000.00	20.00	20.00	2,000.00	50.86	38.88	J-10	3,411.59	3,411.59	31.84	20.01	J-10
J-4A	Zone	14	true	true	1,000.00	20.00	20.00	1,000.00	61.33	47.64	J-10	3,070.33	3,070.33	33.25	20.01	J-8

Scenario: MDD
Fire Flow Analysis
Junction Report

Label	Elevation (ft)	Demand (Calc'd) (gpm)	Calc'd HGL (ft)	Pressure (psi)	Zone	Type	Base Flow (gpm)	Pattern
J-1	1,055.00	0.00	1,200.38	62.90	Zone	Demand	0.00	Fixed
J-2	1,045.00	233.00	1,197.30	65.89	Zone	Demand	233.00	Fixed
J-3	1,040.00	105.00	1,195.40	67.23	Zone	Demand	105.00	Fixed
J-4	1,035.00	85.00	1,194.61	69.06	Zone	Demand	85.00	Fixed
J-5	1,040.00	180.00	1,193.74	66.51	Zone	Demand	180.00	Fixed
J-6	1,035.00	203.00	1,193.06	68.38	Zone	Demand	203.00	Fixed
J-7	1,050.00	128.00	1,192.63	61.71	Zone	Demand	128.00	Fixed
J-8	1,065.00	53.00	1,192.73	55.26	Zone	Demand	53.00	Fixed
J-9	1,055.00	148.00	1,192.26	59.38	Zone	Demand	148.00	Fixed
J-10	1,065.00	85.00	1,192.35	55.10	Zone	Demand	85.00	Fixed
J-13	1,045.00	160.00	1,193.74	64.35	Zone	Demand	160.00	Fixed
J-14	1,045.00	128.00	1,194.68	64.76	Zone	Demand	128.00	Fixed
J-15	1,060.00	233.00	1,195.15	58.47	Zone	Demand	233.00	Fixed
J-1A	1,055.00	0.00	1,200.38	62.90	Zone	Demand	0.00	Fixed
J-2A	1,045.00	0.00	1,197.30	65.89	Zone	Demand	0.00	Fixed
J-3A	1,040.00	0.00	1,195.40	67.23	Zone	Demand	0.00	Fixed
J-4A	1,035.00	0.00	1,194.61	69.06	Zone	Demand	0.00	Fixed

Scenario: MDD
Fire Flow Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Mat'l	Mannings n	Check Valve?	Velocity (ft/s)	Control Status	Discharge (gpm)	US Structure HGL (ft)	DS/HGL (ft)	Pressure Pipe Headloss (ft)	Headloss Gradient (ft/1000ft)
P-1	1,200.00	12.0	PVC	0.012	false	3.06	Open	1,078.03	1,205.00	1,200.38	4.62	3.85
P-3	800.00	12.0	PVC	0.012	false	3.06	Open	1,078.09	1,200.38	1,197.30	3.08	3.85
P-4	1,300.00	12.0	PVC	0.012	false	1.89	Open	664.51	1,197.30	1,195.40	1.90	1.46
P-5	1,200.00	12.0	PVC	0.012	false	1.26	Open	444.71	1,195.40	1,194.61	0.79	0.66
P-6	1,500.00	14.0	PVC	0.012	false	1.32	Open	632.81	1,194.61	1,193.74	0.87	0.58
P-7	600.00	10.0	PVC	0.012	false	1.47	Open	359.83	1,193.74	1,193.06	0.68	1.13
P-8	2,000.00	10.0	PVC	0.012	false	0.64	Open	156.83	1,193.06	1,192.63	0.43	0.22
P-9	600.00	8.0	PVC	0.012	false	0.50	Open	79.01	1,192.73	1,192.63	0.11	0.18
P-10	2,000.00	8.0	PVC	0.012	false	0.84	Open	132.01	1,193.74	1,192.73	1.00	0.50
P-11	1,100.00	8.0	PVC	0.012	false	0.69	Open	107.85	1,192.63	1,192.26	0.37	0.33
P-12	1,900.00	8.0	PVC	0.012	false	0.26	Open	-40.15	1,192.26	1,192.35	0.09	0.05
P-16	2,700.00	12.0	PVC	0.012	false	0.92	Open	324.19	1,194.68	1,193.74	0.94	0.35
P-17	1,300.00	10.0	PVC	0.012	false	0.82	Open	-201.76	1,194.68	1,195.15	0.46	0.36
P-18	3,100.00	8.0	PVC	0.012	false	0.80	Open	125.15	1,193.74	1,192.35	1.40	0.45
P-19	1,300.00	12.0	PVC	0.012	false	0.11	Open	-39.03	1,193.74	1,193.74	0.01	0.00
P-20	1,300.00	10.0	PVC	0.012	false	1.02	Open	250.43	1,195.40	1,194.68	0.71	0.55
P-21	1,300.00	10.0	PVC	0.012	false	1.78	Open	434.76	1,197.30	1,195.15	2.15	1.66
P-3A	800.00	10.0	PVC	0.012	false	2.71	Open	662.91	1,200.38	1,197.30	3.08	3.85
P-4A	1,300.00	10.0	PVC	0.012	false	1.67	Open	408.73	1,197.30	1,195.40	1.90	1.46
P-1C	10.00	14.0	PVC	0.012	false	0.00	Open	0.06	1,200.38	1,200.38	0.00	0.00
P-2C	10.00	14.0	PVC	0.012	false	0.53	Open	254.17	1,197.30	1,197.30	0.00	0.10
P-3C	10.00	14.0	PVC	0.012	false	0.28	Open	135.63	1,195.40	1,195.40	0.00	0.02
P-5A	1,200.00	10.0	PVC	0.012	false	1.12	Open	273.10	1,195.40	1,194.61	0.78	0.65
P-4C	10.00	12.0	PVC	0.012	false	0.77	Open	273.10	1,194.61	1,194.61	0.00	0.24
P-1A	1,200.00	10.0	PVC	0.012	true	2.71	Open	662.97	1,205.00	1,200.38	4.62	3.85

Scenario: MDD
Fire Flow Analysis
Pipe Report

Label	Length (ft)	Diameter (in)	Mat'l	Mannings n	Check Valve?	Velocity (ft/s)	Control Status	Discharge (gpm)	US Structure HGL (ft)	DS/HGL (ft)	Pressure Pipe Headloss (ft)	Headloss Gradient (ft/1000ft)
P-1	1,200.00	12.0	PVC	0.012	false	3.06	Open	1,078.03	1,205.00	1,200.38	4.62	3.85
P-3	800.00	12.0	PVC	0.012	false	3.06	Open	1,076.09	1,200.38	1,197.30	3.08	3.85
P-4	1,300.00	12.0	PVC	0.012	false	1.89	Open	664.51	1,197.30	1,195.40	1.90	1.46
P-5	1,200.00	12.0	PVC	0.012	false	1.26	Open	444.71	1,195.40	1,194.61	0.79	0.66
P-6	1,500.00	14.0	PVC	0.012	false	1.32	Open	632.81	1,194.61	1,193.74	0.87	0.58
P-7	600.00	10.0	PVC	0.012	false	1.47	Open	359.83	1,193.74	1,193.06	0.68	1.13
P-8	2,000.00	10.0	PVC	0.012	false	0.64	Open	156.83	1,193.06	1,192.63	0.43	0.22
P-9	600.00	8.0	PVC	0.012	false	0.50	Open	79.01	1,192.73	1,192.63	0.11	0.18
P-10	2,000.00	8.0	PVC	0.012	false	0.84	Open	132.01	1,193.74	1,192.73	1.00	0.50
P-11	1,100.00	8.0	PVC	0.012	false	0.69	Open	107.85	1,192.63	1,192.26	0.37	0.33
P-12	1,900.00	8.0	PVC	0.012	false	0.26	Open	-40.15	1,192.26	1,192.35	0.09	0.05
P-16	2,700.00	12.0	PVC	0.012	false	0.92	Open	324.19	1,194.68	1,193.74	0.94	0.35
P-17	1,300.00	10.0	PVC	0.012	false	0.82	Open	-201.76	1,194.68	1,195.15	0.46	0.36
P-18	3,100.00	8.0	PVC	0.012	false	0.80	Open	125.15	1,193.74	1,192.35	1.40	0.45
P-19	1,300.00	12.0	PVC	0.012	false	0.11	Open	-39.03	1,193.74	1,193.74	0.01	0.00
P-20	1,300.00	10.0	PVC	0.012	false	1.02	Open	250.43	1,195.40	1,194.68	0.71	0.55
P-21	1,300.00	10.0	PVC	0.012	false	1.78	Open	434.76	1,197.30	1,195.15	2.15	1.66
P-3A	800.00	10.0	PVC	0.012	false	2.71	Open	662.91	1,200.38	1,197.30	3.08	3.85
P-4A	1,300.00	10.0	PVC	0.012	false	1.67	Open	408.73	1,197.30	1,195.40	1.90	1.46
P-1C	10.00	14.0	PVC	0.012	false	0.00	Open	0.06	1,200.38	1,200.38	0.00	0.00
P-2C	10.00	14.0	PVC	0.012	false	0.53	Open	254.17	1,197.30	1,197.30	0.00	0.10
P-3C	10.00	14.0	PVC	0.012	false	0.28	Open	135.63	1,195.40	1,195.40	0.00	0.02
P-5A	1,200.00	10.0	PVC	0.012	false	1.12	Open	273.10	1,195.40	1,194.61	0.78	0.65
P-4C	10.00	12.0	PVC	0.012	false	0.77	Open	273.10	1,194.61	1,194.61	0.00	0.24
P-1A	1,200.00	10.0	PVC	0.012	true	2.71	Open	662.97	1,205.00	1,200.38	4.62	3.85

Scenario: MDD
Fire Flow Analysis
Reservoir Report

Label	Elevation (ft)	Zone	Inflow (gpm)	Calculated Hydraulic Grade (ft)
R-1	1,205.00	Zone	1,078.03	1,205.00
R-2	1,205.00	Zone	-662.97	1,205.00

FROM 2001 CENSUS DATA, CAPITA / HOUSEHOLD (LOT) = 3.66

TOTAL PROJECTED POPULATION FOR THIS PHASE = 8200 PPL

TOTAL LOTS = PPL / CAPITA PER LOT = 2240 LOTS

PER LOT DEMAND = 0.5 AFY/LOT

= 446 GPD/LOT

TOTAL:

AVERAGE DAY DEMAND = PER LOT DEMAND x TOTAL LOTS 999,997 GPD

MAXIMUM DAY DEMAND = AVG DAY DEMAND X DAILY PEAKING FACTOR

= 999,997 X 2.50 *CALCULATED*

= **2,499,992 GPD** = **1,736 GPM**

PEAK HOUR DEMAND = MAX DAY DEMAND X PEAK HOUR PEAKING FACTOR / 24

= 2,499,992 X 2 / 24 =

= **208,333 GPH**

EQUALIZATION STORAGE:

ASSUMPTION: PEAK HOUR DEMAND IN EXCESS OF SUPPLY OCCURS FOR 14 HOUR

WELL INFORMATION:

	SUSTAINED PUMPING RATE	
WELL 3	500 GPM	EXISTING CSA 16 WELL
WELL 4	300 GPM	EXISTING CSA 16 WELL
ARCIERO 1	500 GPM	ASSUMED RATE (NEW WELL MEASURED AT 800 GPM)
Future Well 2	500 GPM	ASSUMED RATE
Future Well 3	500 GPM	ASSUMED RATE
TOTAL	2,300 GPM	

RATE OF SUPPLY = 1,800 x 0.8 (RATE OF SUPPLY ASSUMES

1,440 GPM LARGEST WELL IS OFF LINE)

= 86,400 GPH

EQUALIZATION STORAGE = (PEAK HOUR DEMAND - RATE OF SUPPLY) x 14 HRS

= **1,707,057 GALLONS**

EMERGENCY STORAGE:					
MINIMUM SANITARY SUPPLY =	50	GALLONS PER PERSON FOR	3	DAYS	
TOTAL POPULATION =	8200				
EMERGENCY STORAGE	=	**1,230,000**	**GALLONS**		

FIRE FLOW:					
MAX FIRE FLOW DEMAND =	2750	GPM FOR	2	HOURS	
FIRE FLOW	=	**330,000**	**GALLONS**		

TOTAL BUILD OUT STORAGE REQUIRED =					
1,707,057	+	1,230,000	+	330,000	
	=	**3,267,057**	**GALLONS**		

EXISTING STORAGE:			
EXISTING CSA-16 TANK	=	**212,000**	**GALLONS**

ADDITIONAL STORAGE REQUIRED:			
= TOTAL STORAGE REQUIRED - EXISTING STORAGE			
	=	**3,055,057**	**GALLONS**

7.2 Wastewater

The Wallace Group recommended that the treatment facilities be built in 0.5 million gallons per day (mgd) phases, with additional phases to be added to the system as the population increases with future development. The Wallace Group assumed a per capita loading of 80 gallons per day (gpd) which correlates to each 0.5 mgd phase being able to serve a population of approximately 5,000 people; each 0.5 mgd phase would require approximately 4.6 acres of treatment ponds, 2.5 acres of percolation/storage ponds, and 50 acres for irrigating with recycled water. A 1.0 mgd treatment facility would be required to serve a population of about 8,200.

It is recommended that areas for using recycled water from the treatment facilities be located as close to the treatment plant as possible to reduce infrastructure costs. These fields will need to be secured by either an ownership or a perpetual easement agreement reviewed and renewed by the County or the operating authority. Possible locations of have been identified on the Waste Water System Plan for both locations.

Secondary effluent is the most common level of treatment, and the Regional Water Quality Control Board (RWQCB) requires that only non-food groups be eligible for the irrigation. Tertiary treatment is being considered as a treatment process for Shandon. Tertiary treatment allows for reuse of the wastewater for irrigation of landscape areas, commercial sale, surface discharge and irrigation of food groups.

Construction of the wastewater improvements in the Plan Area will be phased with new development. Fallingstar Phase 1 is anticipated to be the first major development in the Plan Area. The May 2005 Wallace Group report determined that buildout of the Fallingstar Phase 1 development will require a 0.2 mgd treatment plant to be constructed as part of this development. A more detailed design of the treatment plant and pipe sizes will identify the appropriate phasing and sizing of the treatment facility at the time improvement plans are being prepared. Additional improvements that are not backbone pipelines will be on a tract-by-tract basis, and pipe sizes will be confirmed at the time of improvement plan submittal.

Preliminary Sewer Pipe Sizing

- Preliminary pipe capacities were determined using procedures from Section 7.1 from San Luis Obispo County Standards (2007).
- The Average Daily Demand (ADD) was selected to be consistent with flows used to design the proposed AIPS waste water treatment plant.
- The Peak Daily Demand (PDD) was calculated using a peaking factor of 2 X ADD.
- The Peak Hourly Demand (PHD) was calculated using an hourly peaking factor of 2 x PDD.
- All facilities were designed to accommodate a potential build out population of 8,200 in the 20 year plan area
- Sewer pipes were sized to be ½ full for peak flow (3/4 full for pipes larger than 15") at PDD, assuming PVC construction (n = 0.012), and 0.5% slope.
- Lift stations were designed for the PHD

ADD = 80 GPD/Person = 0.056 GPM/Person PDD = 160
GPD/Person = 0.125 GPM/Person PHD = 320
GPD/Person = 0.250 GPM/Person

Location	Population	Location	Population
Arciero 1	2,100	Peaceful Valley	500
Arciero 2	1,000	Peck	1,900
Cholame	100	Heights	500
Estrella	700	San Juan	500
Gateway	400	Truesdale	500
		Total	**8,200**

Pipe Size	Slope	Q	Vel/(Vel Min)	POPULATION
(Inches)	*(%)*	*(GPM)*	*(FPS)*	
8	0.5	208	2.7	1,650
10	0.5	377	3.1	3,000
12	0.5	612	3.5	4,900
15	0.5	1,110	4.0	8,900
18	0.5	3,293	5.2	31,000

Lift Station and Force Main Design

Lift Station	Load (People)	Load (GPM)	Pipe Size (Inch)
Copelan-LS#1	2,700	700	8
Copelan-LS#2	2,000	500	6
Copelan-LS#3	8,200	2,100	10
Peck 1-LS#1	4,800	1,200	8
Peck 1-LS#2	1,200	300	6
Peck 1-LS#3	3,700	1,000	8
Peck 2-LS#1	8,200	2,100	10
Peck 2-LS#2	1,200	300	6
Peck 2-LS#3	3,700	1,000	8
San Juan-LS#1	2,800	700	8
San Juan-LS#2	1,500	375	6
San Juan-LS#3	2,200	550	8
San Juan-LS#4	1,700	425	6

Force main were sized to carry the Peak Hourly Demand using the Flow Master computer program assuming an operating pressure of 50 psi and an elevation difference (Lift) of 30′

Note: The sizing of all sewer facilities is approximate and assumed potential population densities and development locations. A more detailed analysis should be performed when these variables have been clarified.

7.3 Storm water

The backbone storm drain system was designed to convey the 50-year peak flows from the Plan Area. The hydrology used in this analysis was calculated using the rational method as described in the San Luis Obispo County Department of Public Works Public Improvement Standards and Standard Construction Drawings (2007 edition). The backbone pipes were designed using Manning's equation with an assumed slope of 1% and flowing full. A more detailed analysis should be performed before construction to confirm pipe capacities. It is possible that smaller pipes may be adequate when analyzed as pressure pipes as long as the HGL is at least 6" below the rim or grate elevations of any drainage structures.

Q50 Calculations and Preliminary Backbone Sizing

Hydrology

(H-1) Map = 13"/year

(H-4) Table 1 i_{50} - 10 min. = 2.2 in./hr. i_{50} – 15 min. = 1.9 in./hr.

i_{50} 30 min. = 1.3 in./hr.

(H-2) Tc 1) H = 60', L = 3700' Tc = 20 min. (use 15 min.) i_{50} = 1.9 in./hr.

2) H = 120', L = 3600' Tc = 15 min. i_{50} = 1.9 in./hr.

3) H = 370', L = 5000' Tc = 15 min. i_{50} = 1.9 in./hr.

4) H = 60', L = 5500' Tc = 30 min. i_{50} = 1.3 in./hr.

(H-3) (H-3a) "C" values assumed clay (soil type "C")

Land Use	Buildout Condition	Slope	C
CR, CS, MV	Commercial	2-10%	(0.80)
PF	(School)	2-10%	(0.50)
MFR	Apartments	2-10%	(0.60)
RSF	Residential 10K-20K SF	2-10%	(0.45)
RS	Residential > 20,000 SF	2-10%	(0.40)
Open (2%-10%)	Open, Fair Cover	2-10%	(0.14) + (0.06) + (0.08) + (0.06) = 0.34
Open >	10%	10-30%	(0.24) + (0.06) + (0.08) + (0.08) = 0.46

Composite "C" Values (Cw)

1)

Land Use	Area	C
RSF	40	(0.45)
RS	40	(0.40)
Open 2-10%	65	(0.34)
Open > 10%	40	(0.46)
Total	185 AC	

$$Cw = \frac{(40)(0.45) + (40)(0.40) + 65(0.34) + 40(0.46)}{185} = 0.40$$

2)

PF	10 AC	(0.50)
MFR	8 AC	(0.60)
RSF	35 AC	(0.45)
CR	2 AC	(0.80)
Open 2-10%	35 AC	(0.34)
Open > 10%	40 AC	(0.46)
Total	130 AC	

$$Cw = \frac{10(0.50) + 8(0.60) + 35(0.45) + 2(0.80) + 35(0.34) + 40(0.46)}{130\ AC} = 0.44$$

3)

CR, CS, MU	25 AC	(0.80)
MFR	5 AC	(0.60)
RSF	25 AC	(0.45)
Open 2-10%	65 AC	(0.34)
Open > 10%	70 AC	(0.46)
Total	190 AC	

$$Cw = \frac{25(0.80) + 5(0.60) + 25(0.45) + 65(0.34) + 70(0.46)}{190\ AC} = 0.47$$

Land Use	Area	C	Cw = 10510.45
4) RSF	105 AC	0.45	(0.34)
Open 2-10%	210 AC	0.34	(0.50)
PF (School)	10 AC	0.50	(0.60)
MFR	5 AC	0.60	
Total	330 AC		

$$Cw = \frac{210(0.34) + 210(0.34) + 10(0.50) + 5(0.60)}{330\ AC} = 0.38$$

Pipe Capacities Using Manning Equation $Q = \frac{1.44}{N} R^{2/3} S^{1/2}$

N = 0.12 (HDPE Pipe) (Pipe Flowing Full)

Size	S = 0.5%	S = 1.0%	S = 1.5%
24"	17 CFS	25 CFS	
36"	51 CFS	73 CFS	
48"	110 CFS	155 CFS	190 CFS
60"	200 CFS	282 CFS	

Results

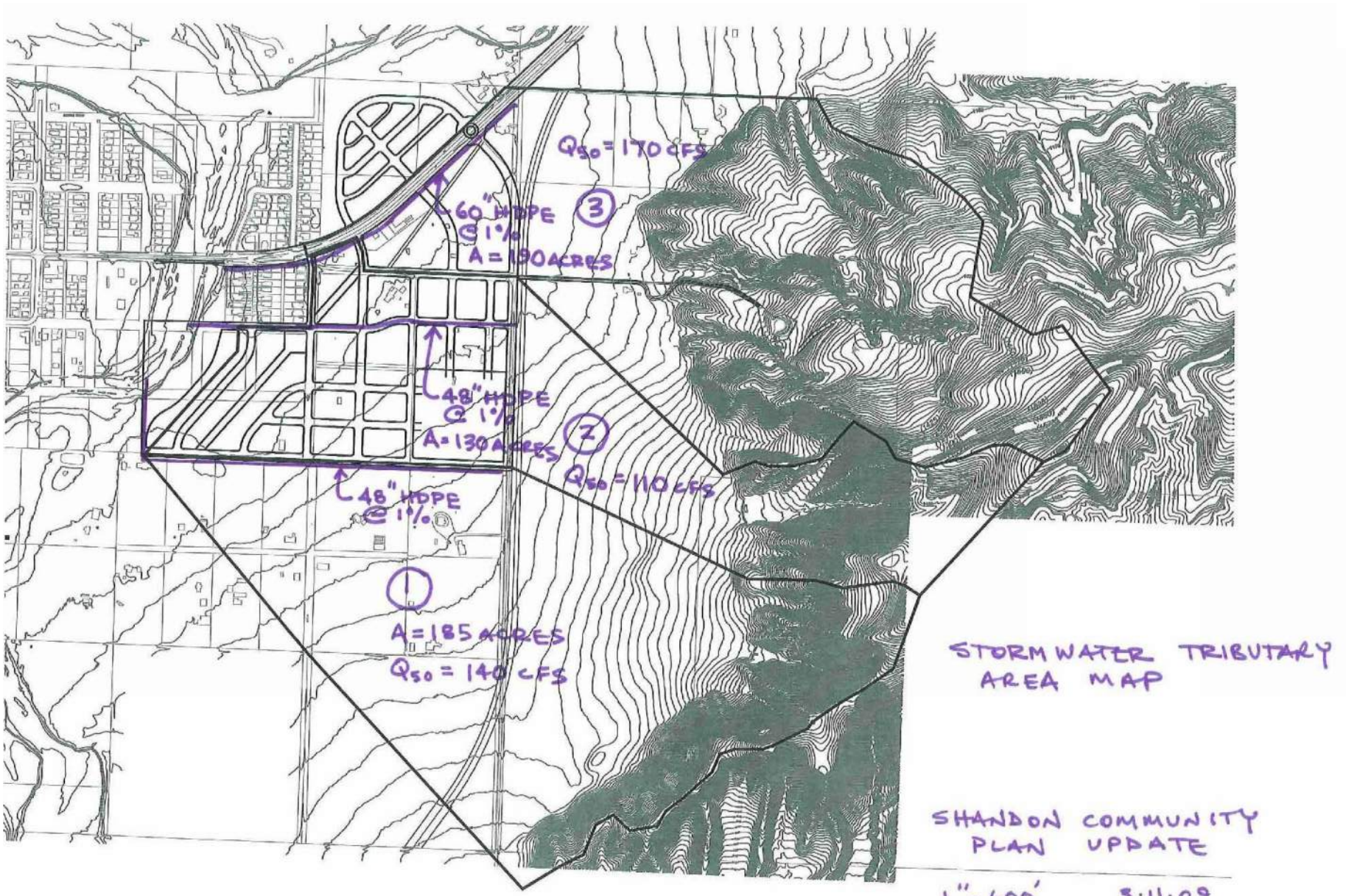
Assumed Pipes at 1%

1) Q_{50} = (0.40)(1.9 in./hr.)(185 AC) = 140 CFS
Use 48" HDPE

2) Q_{50} = (0.44)(1.9 in./hr.)(130 AC) = 109 CFS
Use 48" HDPE

3) Q_{50} = (0.47)(1.9 in./hr.)(190 AC) = 170 CFS
Use 60" HDPE
(Can use 48" @ 1.5%)

4) Q_{50} = (0.38)(1.3 in./hr.) (330 AC) = 165 CFS
Use 60" HDPE



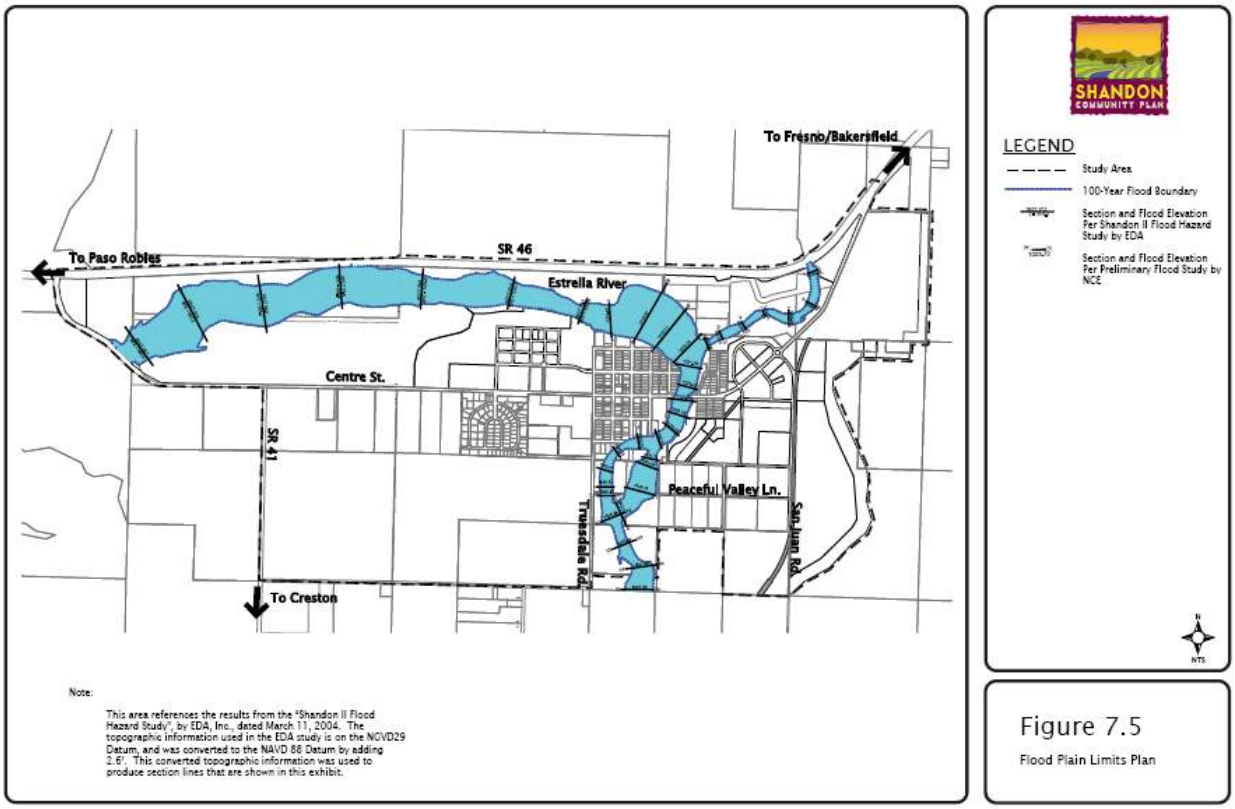
STORM WATER TRIBUTARY AREA MAP

SHANDON COMMUNITY PLAN UPDATE

1" = 600' 5.11.09

7.4 Flood Management

An extensive flood study was performed to determine the 100-year flood boundaries of the Estrella River, San Juan Creek, and Cholame Creek within the Plan Area. This report, entitled "Flood Plain Analysis and Calculations for Phase 1 Arciero Project Shandon CA," dated December 2004, revised May 2008, was prepared by North Coast Engineering, Inc. using the NRCS methodology to determine hydrology and the HEC-RAS computer program by the Army Corps of Engineers to perform a hydraulic analysis of the watercourses. Additional flood information was determined using results from the "Shandon II Flood Hazard Study" by EDA, Inc., dated March 11, 2004. The topographic information used in the EDA study is on the NGVD29 Datum, and was converted to the NAVD 88 Datum by adding 2.6'. This converted topographic information was used to produce section lines that are shown in the following exhibit.



7.5 Utilities

The State Fire Marshall enforces the Safety Act, which establishes a separation requirement of 5-feet horizontal clearance and 12-inch vertical clearance between pipelines and appurtenant structures that may be allowed within the easement. The separation requirement gives operators the ability to visually inspect pipelines and provides access for maintenance and emergency operations.

Appendix C

Shandon Master Tree List with Tree Characteristics

The following table lists the characteristics of tree species that passed screening through both the first and second sets of criteria.

Table III: Tree Characteristics

TERTIARY CRITERIA	Height/ Breadth	Branch Strength	Life Span	Shade Capacity[1]	Shade Tree[2]	Disease Prone	Fall Color	Evergreen	Shape	Texture	Ornamental	Spring Flowering	Allergen/ Irritant	PG & E Approved	Pruning/ Staking Req'd	Messy
SPECIES																
Acacia baileyana/ Bailey Acacia	to 30´x 40´	Weak	Short	M	✓	✓	✓	✓	Broad		✓	✓	✓		✓	
Acer macrophyllum/ Bigleaf Maple*	to 75´x 50´	Medium	Long	D	✓	✓	✓		Oval				✓			
Acer negundo v. californicum/ California box Elder*	to 60´x 60´+	Weak	Long	D	✓	✓	✓		Oval				✓		Suckers	
Angophora costata/ Gum Myrtle*	to 50´	Medium	Long	MD	✓			✓	Cone							
Arbutus menziesii/ Madrone	to 100´x 80´	Strong	Long	MD	✓			✓	Round		✓		✓			✓
Arbutus unedo/Strawberry Tree	to 35´x 35´	Strong	Long	D	✓			✓	Round		✓		✓			
Brachychiton acerifolius/ Illawarra Flame Tree*	to 60´x 30´	Weak	Long	D	✓	✓	✓		Cone		✓	✓ 10 yrs	✓			
Calocedrus decurrens /Incense Cedar	to 90´x 15´	Medium	Long	VD				✓	Pyramid		✓		✓			
Cedrus deodara/ Deodar Cedar	to 80´x 40´	Medium	Long	MD	✓			✓	Pyramid		✓		✓			
Cercis canadensis/ Eastern Redbud	to 35´x 35´	Medium	Long	LM					Round		✓	✓	✓	✓		
Cercis occidentalis/ Western Redbud	to 18´x 18´	Medium	Long	M	✓	✓	✓		Round		✓	✓		✓	✓	
Chamaecyparis lawsoniana/ Lawson Cypress	to 60´x 18´	Strong	Long	D				✓	Pyramid		✓		✓			
Eucalyptus cinerea/ Silver Dollar Tree	to 55´x 45´	Unknown	Long	LM				✓	Round		✓					
Eucalyptus nicholii/ Willow Peppermint	to 48´x 36´	Medium	Long	MD	✓			✓	Oval-Hrzt							
Eucalyptus polyanthemos/ Silver Dollar Gum	to 75´x 45´	Medium	Long	M	✓			✓	Oval-Vrt		✓					
Eucalyptus torquata/ Coral Gum	to 36´x 30´	Medium	Long	M	✓			✓	Oval/Open		✓	✓			✓	
Fraxinus Americana/ White Ash*	to 80´x 50´	Medium-Strong	Long	LM					Oval				✓			
Fraxinus angustifolia (oxycarpa)/ Raywood Ash	to 35´x 25´	Medium	Long	M	✓	✓	✓		Oval-Hrzt				✓		✓	
Heteromeles arbutifolia/ Toyon	to 25´x 20´	Medium	Long	D	✓			✓	Vase					✓	✓	
Jacaranda mimosifolia/ Jacaranda	to 50´x 50´	Weak	Long	MD	✓				Oval-Hrzt		✓	✓				✓
Koelreuteria bipinnata/ Chinese Flame Tree	to 40´x 40´	Medium	Medium—Long	M	✓	✓	✓		Round		✓	Late Summer			✓	
Koelreuteria paniculata/ Golden Raintree	to 35´x 40´	Medium	Medium—Long	LM		✓	✓		Round		✓	Mid Summer	✓		✓	
Lagerstroemia indica/ Crape Myrtle	to 25´x 25´	Medium	Medium—Long	M	✓	✓	✓		Round		✓	Summer		✓		
Laurus nobilis/ Sweet Bay*	to 40´x 40´	Medium	Medium—Long	VD[3]	✓			✓	Oval-Hrzt							✓
Malus 'Prairifire'/ Flowering Crabapple	to 20´x 15´	Unknown	Long	Not Rated					Oval-Hrzt		✓	✓		✓	✓	
Pinus attenuata/ Knobcone Pine	to 80´x25´	Medium	Medium—Long	D				✓	Oval-Vrt				✓			✓
Pinus coulteri/ Coulter Pine**	to 80´x 40´	Medium	Long	M	✓			✓	Cone-Vrt				✓			✓
Pinus monophylla/ Single-leaf Pinion	to 25´x 15´	Medium	Long	M	✓			✓	Round				✓	✓		✓
Pinus monticola/ Western White Pine	to 60´x 20´	Medium	Long	M				✓	Cone				✓			✓

Source: Shandon Area Master Tree Plan – T. Pullen, 2007

[1] Rated by the Urban Forest Ecosystems Institute as low, moderate, or densely leaved.
[2] Must be rated moderate (M) to densely (D) leaved and have a spread at least half of height to be considered a shade tree.
[3] If allowed to grow into a tree
* Appropriate for Gateway locations only due to aggressive root systems (Laurus nobilis root system characteristics undetermined)
** Appropriate for Gateway locations only due to dropping of massive cones

Table III: Tree Characteristics

TERTIARY CRITERIA	Height/ Breadth	Branch Strength	Life Span	Shade Capacity [4]	Shade Tree[5]	Disease Prone	Fall Color	Evergreen	Shape	Texture	Ornamental	Spring Flowering	Allergen/ Irritant	PG & E Approved	Pruning/ Staking Req'd	Messy
SPECIES																
Pinus ponderosa/ Ponderosa Pine	**to 100´x 30´**	**Strong**	**Long**	**M**				✓	**Cone**				✓			✓
Pinus sabiniana/ Gray Pine	**to 80´x 50´**	**Weak-Medium**	**Medium—Long**	**LM**				✓	**Cone**				✓			✓
Pistacia chinensis/ Chinese Pistache	**to 60´x 40´**	**Strong**	**Long**	**M**	✓	✓	✓		**Oval-Vrt**		✓		✓			
Platanus acerifolia / London Plane Tree*	**to 80´x 40´**	**Strong**	**Long**	**LM-D**					**Oval**				✓			
Platanus racemosa/ California Sycamore*	**to 80´x 50´**	**Medium**	**Long**	**M-D**	✓				**Spread**				✓			
Populus fremontii/ Cottonwood*	**to 60´x 30´**	**Weak**	**Medium—Long**	**M**	✓	✓	✓		**Round**				✓			
Prunus lyonii/ Catalina Cherry	**to 45´x 30´**	**Medium**	**Long**	**D**	✓	✓	✓	✓	**Varied**							✓
Prunus 'Okame'/ Flowering Cherry	**to 25´x 20´**	**Strong**	**Long[6]**	**MD**	✓	✓	✓		**Oval-Vrt**		✓	✓		✓	✓	
Pseudotsuga menziesii/ Douglas Fir	**to 160´x 30´**	**Strong**	**Long**	**M**				✓	**Pyramid**				✓			✓
Pyrus calleryana 'redspire'/ Redspire Ornamental Pear	**to 35´x 20´**	**Medium**	**Long**	**MD**	✓	✓	✓		**Oval-Vrt**		✓	✓			✓	
Quercus agrifolia/ Coast Live Oak*	**to 70´x 70´+**	**Strong**	**Long**	**MD**	✓			✓	**Umbrella**				✓			
Quercus chrysolepis/ Canyon Live Oak	**to 60´x 60´**	**Strong**	**Long**	**MD**	✓			✓	**Round**				✓			
Quercus douglasii/ Blue Oak	**to 50´x 70´**	**Strong**	**Long**	**M**	✓				**Round**				✓			
Quercus kelloggii/ California Black Oak	**to 80´x 80´**	**Strong**	**Long**	**MD**	✓				**Round**				✓			
Quercus lobata/ Valley Oak	**to 70´x 70´**	**Medium-Strong**	**Long**	**M**	✓				**Oval-Hrzt**				✓			
Quercus wislizenii/ Interior Live Oak	**to 75´x 75´+**	**Strong**	**Long**	**D**	✓			✓	**Round**				✓			
Sequoia sempervirens/ Coast Redwood	**to 90´x 30´**	**Strong**	**Long**	**D**	✓			✓ [7]	**Cone**				✓			
Sophora japonica/ Japanese Pagoda Tree	**to 70´x 70´**	**Medium**	**Medium—Long**	**MD**	✓				**Round**							✓
Thuja plicata/ Western Red Cedar	**to 100´x 60´**	**Medium**	**Long**	**D**	✓			✓	**Cone**							
Umbellularia californica/ California Bay Laurel	**to 25´x 25´**	**Strong**	**Long**	**D**	✓			✓	**Round**				✓			

Source: Shandon Area Master Tree Plan – T. Pullen, 2007

[4] Rated by the Urban Forest Ecosystems Institute as low, moderate, or densely leaved.
[5] Must be rated moderate (M) to densely (D) leaved and have a spread at least half of height to be considered a shade tree.
[6] This according to numerous nurseries (The Urban Forest Ecosystems Institute does not report a rated longevity for this tree).
[7] Many sources disagree with evergreen status
* Appropriate for Gateway locations only due to aggressive root systems (Laurus nobilis root system characteristics undetermined)

Appendix D

EIR Mitigation Measures

New development shall comply with the following mitigation measures from the *Environmental Impact Report for the Shandon Community Plan Update and San Juan Village (Fallingstar I Project).* Please refer to Table 9.1 in the Shandon Community Plan. The table identifies the type of development project for which each mitigation measure is required, for example, new land divisions and projects requiring discretionary permits, or projects within a certain Master Plan Area.

AES-1(a) Residential Siting and Design Standards. Residential site locations shall be chosen to minimize aesthetic impacts. Considerations shall include, but not be limited to, the following guidelines as adapted from the Countywide Design Guidelines:

- Lots shall be screened from SR 46 to minimize impacts to visual corridors.

Residential design shall blend new residences and associated improvements into the natural landscapes. This may include, but not be limited to, the following architectural guidelines as adapted from the Countywide Design Guidelines:

- Conformance to existing topography.
- Building materials that blend with the surrounding environment in terms of color, texture, non-reflectivity and scale.
- Avoidance of extensive paved areas in the front yards allowing long-term external storage of vehicles.
- Landscaping that blends into the natural environment and screens the residence from view.
- Walls and fences designed using style, materials, and color to complement the buildings to which they are attached.
- Design of attached multi-family development to avoid monotony and promote visual interest. This may include, but not be limited to, the following:
    - o Units that resemble large single family dwellings
    - o Varied front setbacks within the same structure
    - o Staggered unit plans
    - o Use of reverse building plans to add variety
    - o Maximum of two adjacent units with identical exterior wall and roof lines
    - o A variety of orientations
    - o Clustered units
- Articulation in the design of residential buildings and avoidance of long uninterrupted exterior walls. For dwellings with sloped roofs, use of both vertical and horizontal articulation.

Plan Requirements and Timing. Residential location and design shall be subject to review by Planning and Building. Design standards shall be depicted on site plans. Monitoring. Planning and Building shall review site plans prior to issuance of building permits.

AES-1(b) Commercial Design Standards. Commercial design shall blend new structures and associated improvements into the natural landscapes. This may include, but not be limited to, the following architectural guidelines as adapted from the Countywide Design Guidelines:

- Creation of horizontal emphasis to visually break up structures through the use of trim or other elements, adding awnings, eaves or other ornamentation, by using a combination of complimentary colors, and through the use of landscaping.
- Screening of areas to be utilized for storage, refuse, or loading from view of access streets, roadways, or adjacent residences with berms, landscaping, low garden walls, fencing, or a combination of these features.
- Landscaped parking lot areas. In order to provide visual relief, glare reduction, and shade, large-canopy trees are recommended. Native species found within the project vicinity should be used to the greatest extent feasible. Non-native tree species not listed as invasive by the California Invasive Plant Council may also be used if native species are unavailable or are determined to be inappropriate for a specific site.
- Use of alternative foundation systems such as split level, post and beam, etc., and use exterior materials and colors that blend with the surroundings.
- Avoidance of large monument signs and electronic message signs.

Plan Requirements and Timing. Commercial location and design shall be subject to review by Planning and Building. Encroachment associated with the commercial development shall be reviewed by Public Works. Design standards shall be depicted on site plans. Monitoring. Planning and Building shall review site plans prior to issuance of building permits.

AES-1(c) Architectural and Landscape Guidelines. Future applicants shall develop and implement Architectural and Landscape Guidelines that include the components listed below. The Guidelines shall include clear criteria and requirements to guide the design, layout, and

landscaping of individual residential lots. All future development shall comply with the Guidelines.

Tract landscaping. Landscaping guidelines for tract-wide improvements shall describe the following elements:

- Landscaping shall emulate and be compatible with the surrounding natural environment; only natural fiber, biodegradable materials shall be used;
- Fuel management techniques shall be used, including, but not limited to, fire resistive landscaping, defensible space features, and strictly controlled vegetation within defensible space;
- Fire-resistant vegetation shall be used in tract landscaping.

Roofing and Feature Color and Material. Development plans shall include earth-tone colors on structure roofing and other on-site features to lessen potential visual contrast between the structures and the hilly terrain that constitutes the visual backdrop of the area. Natural building materials and colors compatible with surrounding terrain (earthtones and non-reflective paints) shall be used on exterior surfaces of all structures, including fences.

Understory and Retaining Wall Treatment. Understories and retaining walls higher than six (6) feet shall be in tones compatible with surrounding terrain using textured materials or construction methods which create a textured effect.

Plan Requirements and Timing. Draft Design Guidelines shall be submitted to Planning and Building for review and approval prior to final map recordation. Guidelines shall be recorded with the final map for the tract. A copy of the Guidelines shall be submitted with grading, building, and landscaping plans prior to land use permit approval for individual lot development. Monitoring. Planning and Building shall review the Guidelines prior to final recordation. For both tract and individual house projects, Planning and Building shall ensure construction according to plan. Enforcement of compliance with the Guidelines shall be the responsibility of the Planning and Building Department.

AES-1(d) Grading. Grading shall attempt to preserve hillsides and natural topography; grading transitions shall be gentle rather than abrupt.

Plan Requirements and Timing. Future applicants shall submit grading plans to Planning and Building for review and approval prior

to issuance of grading permits. Monitoring. Planning and Building shall review grading plans prior to issuance of grading permits and inspect units prior to occupancy clearance for each phase.

AES-1(e) Roadways and Infrastructure. New roads shall be blended into the landscape and follow existing topography and vegetation patterns. Cut and fill slopes shall be contoured to conform to the prevailing adjacent landforms and landscapes, and drainage swales may be used rather than curbs where approved by Public Works. Utility service for new development shall be underground.

Plan Requirements and Timing. Future applicants shall submit plans depicting new road and utility placement and design, subject to the review and approval of Planning and Building. Monitoring. Planning and Building and Public Works shall approve plans prior to final recordation.

AES-1(f) Wastewater Treatment Plant Design Standards. The proposed wastewater treatment plant shall be screened from the surrounding area with vegetation and earthen berms. Screening shall hide a minimum of eighty percent of the facility as seen from each of the four sides. Berms shall be contour-graded to appear as a natural part of the landscape. Screen planting shall consist of native trees and shrubs planted in natural vegetative patterns.

Plan Requirements and Timing. The San Juan Village (Fallingstar Phase I) applicant shall submit plans depicting screening of the wastewater treatment plant, subject to the review and approval of Planning and Building. Monitoring. Planning and Building shall review plans prior to final recordation.

AES-1(g) Water Storage Tank Design Standards. Water storage tank site locations shall be chosen to minimize impacts to scenic hillside views. Considerations shall include, but not be limited to, the following:

- Storage tanks shall use natural topography to the greatest extent possible to minimize visibility.
- Storage tanks shall be placed partially or fully underground if feasible.

Water storage tank design shall blend into the natural landscape. This may include, but not be limited to, the following design considerations:

- Water tanks shall include earth-tone colors (e.g. browns, greens, tans and blues) that are compatible with the nearby environment to lessen potential visual contrast between the tanks and the hilly terrain that constitutes the visual backdrop of the area. Natural building materials and colors compatible with surrounding terrain (earth tones and non-reflective paints) shall be used on exterior surfaces of all structures, including fences.
- If water storage tanks cannot be placed underground, they shall be screened from view by native trees.

Plan Requirements and Timing. The San Juan Village (Fallingstar Phase I) applicant shall submit plans depicting the location, grading, and screening of the water tanks, subject to the review and approval of Planning and Building. Monitoring. Planning and Building shall review plans prior to final recordation.

AES-3(a) Lighting. Prior to issuance of construction permits, future applicants shall submit a comprehensive lighting plan to the County Department of Planning and Building for review and approval. The lighting plan shall be prepared by a qualified engineer who is an active member of the Illuminating Engineering Society of North America. Streetlight location, type, and documentation of ongoing maintenance shall be provided to and approved by Public Works. The lighting plan shall be prepared using guidance and best practices endorsed by the International Dark Sky Association. The lighting plan shall include the following in conjunction with other measures as determined by the illumination engineer:

- New lighting shall be oriented away from sensitive uses, and shall be hooded, shielded, and located to direct light pools downward and prevent glare.
- All exterior lighting shall be designed as part of the overall architectural concept. Fixtures, standards and all exposed accessories shall be harmonious with the building design, the lighting design and hardware of the public spaces, and the overall visual environment of the County.
- No electronic message signs shall be used.
- Lighting shall be used for safety and security to illuminate building entrances, parking and loading areas, and pedestrian walkways.
- Light fixtures with exposed light bulbs shall be avoided.
- All light fixtures shall be shielded to confine the spread of light within the residential subdivision boundaries.

Plan Requirements and Timing. Future applicants shall submit lighting plans to Planning and Building for review and approval prior to issuance of building permits. Monitoring. Planning and Building shall review all lighting plans prior to issuance of building permits.

AES-3(b) Low Glare Materials. Finish materials, including glazing, shall be of a low reflectivity to minimize glare. Development shall include low reflectivity glass, subdued colors for building materials in high visibility areas, and the use of plant material along the perimeter of the structures to soften views.

Plan Requirements and Timing. Future applicants shall submit development plans to Planning and Building for review and approval prior to issuance of land use permits. Monitoring. Permit Compliance shall inspect structures upon completion to ensure compliance with approved plans.

AES-3(c) Street Light Limitations. Streetlights shall be pedestrian in scale, not to exceed a height of ten feet, and shall be architecturally compatible with surrounding development. Streetlights, where they are included, shall be primarily for pedestrian safety (at roadway intersections only), and shall not provide widespread illumination nor glare towards the roadway or buildings.

Plan Requirements and Timing. Future applicants shall submit tract lighting plans, where applicable, for review and approval of Planning and Building and Public Works prior to issuance of building permits. Individual lot developers shall submit lot lighting plans subject to the review and approval of Planning and Building prior to approval of building permits. Monitoring. Planning and Building and Public Works shall site inspect prior to occupancy clearance.

AG-1(a) Reduction of Premature Agricultural Conversion. To reduce premature conversion of prime agricultural lands, including those currently under a Williamson Act Contract, the following policy shall be added to the proposed Community Plan Update:

> The County shall develop specific priority rankings for the appropriate timing and location of agricultural conversion in consultation with the Agricultural Department. The factors used to determine these rankings may include, but would not be limited to, the following:

- Development of vacant land within urban areas before agricultural land outside of the urban area;
- Adjacency to existing urban or suburban development;
- Prioritized protection of prime land before non-prime land; and
- Prioritized protection for certain agricultural uses (e.g., row crop terrain and soils, specialty crops and forage lands, dry farm lands, and rangelands for grazing).

Plan Requirements and Timing. Prior to adoption of the Shandon Community Plan, County Planning and Building shall add the referenced policy. Monitoring. Planning and Building shall ensure that future agricultural conversion in the Shandon area is consistent with established priority rankings.

AG-1(b) Farmland Conservation. Prior to the map recordation, future applicants for projects located on prime agricultural land in areas currently designated for Agriculture shall provide evidence to the County Planning and Building Department that a farmland conservation easement, a farmland deed restriction, or other farmland conservation mechanism has been granted in perpetuity to the County or a qualifying entity approved by the County Agricultural Commissioner (or designee). The easement shall provide conservation acreage at a ratio of 1:1 for direct impacts and 0.5:1 for indirect impacts. Additionally, the project proponent shall provide appropriate funds (as determined by the County Planning Department) to compensate for reasonable administrative costs incurred by the easement holder. The area conserved may consist of no more than three noncontiguous parcels, and shall be of a quality that is reasonably (as determined by the Agricultural Commissioner or designee) similar to that of the farmland within the proposed 20-year growth boundary. The area shall be located within San Luis Obispo County within a reasonable proximity to the Study Area.

Plan Requirements and Timing. Evidence of an approved farmland conservation easement, farmland deed restriction, or other farmland conservation mechanism shall be submitted to Planning and Building prior to map recordation. Monitoring. Planning and Building shall not issue land use permits until the project applicant has demonstrated compliance with this measure.

Subject to the approval of the Agricultural Commissioner, in lieu of mitigation measure AG-1(b), the following mitigation may be implemented.

AG-1(c) Funding for Farmland Conservation. Prior to the map recordation, future applicants for projects located on prime agricultural land and in areas currently designated for Agriculture shall provide evidence to the County Planning and Building Department that funds sufficient (as determined by the Agricultural Commissioner or designee) to, (1) purchase a farmland conservation easement, deed restriction, or other farmland conservation mechanism, and (2) to compensate for administrative costs incurred in the implementation of this measure, have been provided to the California Farmland Conservancy Program or similar program (as approved by the Agricultural Commissioner or designee), which will provide for the conservation of adequate acres of farmland [based on ratios defined in mitigation measure AG-1(b)] in San Luis Obispo County.

Plan Requirements and Timing. Evidence of sufficient funds to purchase a farmland conservation easement, deed restriction, or other farmland conservation mechanism, in addition to administrative costs, shall be submitted to Planning and Building prior to map recordation. Monitoring. Planning and Building shall not issue permits until the project applicant has demonstrated compliance with this measure.

AG-2(a) Agricultural Buffers. Future applicants shall maintain County-recommended agricultural buffers (as shown in Table 4.2-2), or as determined appropriate by the Agricultural Commissioner.

Plan Requirements and Timing. This provision shall be noted on the site plans and approved by the Agricultural Commissioner. Monitoring. Planning and Building staff shall approve a site plan that conforms to this recommendation.

AG-2(b) Conflict Reduction through Site Design. New development shall be designed to separate occupied buildings from adjacent agricultural development to the extent possible. This may be accomplished through the following site design measures: building concentration or clustering away from existing agricultural uses; building orientation; and fencing in key locations.

Plan Requirements and Timing. These provisions shall be noted on the site plans and approved by the Agricultural Commissioner.

Monitoring. Planning and Building staff shall approve a site plan that conforms to this recommendation.

AG-2(c) Disclosure of Potential Nuisance. In accordance with the County Right to Farm Ordinance (No. 2050), upon the transfer of real property, the transferor shall deliver to the prospective transferee a written disclosure statement that shall make all prospective homeowners aware that although potential impacts or discomforts between agricultural and non-agricultural uses may be lessened by proper maintenance, some level of incompatibility between the two uses would remain. This notification shall include disclosure of potential nuisances associated with on-site agricultural uses, including the frequency, type, and technique for pesticide spraying, frequency of noise-making bird control devices, dust, and any other vineyard practices that may present potential health and safety effects. In addition, the notification shall identify that adjoining agricultural land is permanently protected for agricultural uses, and that future agricultural uses may vary from current uses and might include processing facilities, nighttime operation, wind machines, odor, dust, noise, legal chemical applications, use and creation of compost, and/or changes in irrigation patterns and water use. The establishment of new agricultural uses, if established in accordance with standard agricultural practices, will not be considered a nuisance from the time of establishment.

Plan Requirements and Timing. The disclosure shall be provided by the property transferor to prospective homeowners upon the transfer of real property. Updated disclosure notifications shall be provided to existing and prospective homeowners as necessary if agricultural maintenance practices change. Monitoring. Planning and Building staff shall review the disclosure statement prior to project occupancy.

AQ-1(a) Construction Equipment Emissions Controls. Future applicants shall implement the following measures to mitigate equipment emissions:

- Maintain all construction equipment in proper tune according to manufacturer's specifications;
- Fuel all off-road and portable diesel powered equipment with ARB certified motor vehicle diesel fuel (non-taxed version suitable for use off-road);
- Use diesel construction equipment meeting ARB's Tier 2 certified engines or cleaner off-road heavy-duty diesel engines, and comply with the State Off-Road Regulation;

- Use on-road heavy-duty trucks that meet the ARB's 2007 or cleaner certification standard for on-road heavy-duty diesel engines, and comply with the State On-Road Regulation;
- Construction or trucking companies with fleets that do not have engines in their fleet that meet the engine standard identified in the above two measures (e.g., captive or NO_X exempt area fleets) may be eligible by providing alternative compliance;
- All on and off-road diesel equipment shall not idle for more than 5 minutes. Signs shall be posted in the designated queuing areas and or jobs sites to remind drivers and operators of the 5 minute idling limit;
- Diesel idling within 1,000 feet of sensitive receptors is not permitted;
- Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors;
- Electrify equipment when feasible;
- Substitute gasoline-powered in place of diesel-powered equipment, where feasible;
- Use alternatively fueled construction equipment on-site where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane, or biodiesel; and
- The applicant shall apply Best Available Control Technology (CBACT) as determined by the APCD.

Plan Requirements and Timing. Applicants shall provide the grading amounts and schedule to the SLOAPCD Planning Division at least three months prior to the start of construction. All applicable BACT measures shall be shown on all grading and construction plans prior to issuance of construction permits. Compliance with these measures shall be included as bid specifications submitted to contractors. Monitoring. Applicants shall provide Planning and Building with proof that the above listed measures, as well as those required by the SLOAPCD upon review of grading plans, have been implemented prior to the start of the construction activity. The grading inspector shall perform periodic site inspections.

AQ-1(b) Dust Control. The following measures shall be implemented to reduce PM_{10} emissions during construction:

- Reduce the amount of the disturbed area where possible;
- Use water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. Water shall be applied as soon as possible whenever wind speeds exceed 15

miles per hour. Reclaimed (nonpotable) water should be used whenever possible;

- All dirt-stock-pile areas shall be sprayed daily as needed;
- Permanent dust control measures shall be identified in the approved project revegetation and landscape plans and implemented as soon as possible following completion of any soil disturbing activities;
- Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading shall be sown with a fast-germinating native grass seed and watered until vegetation is established;
- All disturbed soil areas not subject to revegetation shall be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the SLOAPCD;
- All roadways, driveways, sidewalks, etc., to be paved shall be completed as soon as possible. In addition, building pads shall be laid as soon as possible after grading unless seeding or soil binders are used;
- Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site;
- All trucks hauling dirt, sand, soil or other loose materials shall be covered or shall maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with CVC Section 23114;
- Install wheel washers where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site; and
- Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water shall be used where feasible.

The above measures shall be shown on development plans.

Plan Requirements and Timing. Conditions shall be adhered to throughout all grading and construction periods for all project components. Prior to issuance of grading permits, applicants shall include, as a note on a separate informational sheet to be recorded with any map, the aforementioned dust control recommendations. All recommendations shall be shown on grading and building plans. Monitoring. Planning and Building inspectors shall perform periodic spot checks during grading and construction. SLOAPCD inspectors shall respond to nuisance complaints.

AQ-1(c) Cover Stockpiled Soils. If importation, exportation, or stockpiling of fill material is involved, soil stockpiled for more than two days shall be covered, kept moist, or treated with soil binders to prevent dust generation. Trucks transporting material shall be tarped from the point of origin.

Plan Requirements and Timing. Conditions shall be adhered to throughout all grading and construction periods for all project components. Monitoring. Planning and Building inspectors shall perform periodic spot checks during grading and construction. SLOAPCD inspectors shall respond to nuisance complaints.

AQ-1(d) Dust Control Monitor. The contractor or builder shall designate a person or persons to monitor the dust emissions and enhance the implementation of the measures as necessary to minimize dust complaints, reduce visible emissions below 20% opacity, and to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress.

Plan Requirements and Timing. The name and telephone number of dust monitor(s) shall be provided to the SLOAPCD Compliance Division prior to the start of any grading, earthwork, or demolition. The dust monitor shall be designated prior to approval of a Land Use Permit. Monitoring. Planning and Building shall contact the designated monitor as necessary to ensure compliance with dust control measures.

AQ-1(e) Hydrocarbon Contaminated Soil. Should hydrocarbon contaminated soil be encountered during construction activities, the APCS shall be notified as soon as possible and no later than 48 hours after affected material is discovered to determine if an APCD Permit will be required. In addition, the following measures shall be implemented immediately after contaminated soil is discovered:

- Covers on storage piles shall be maintained in place at all times in areas not actively involved in soil addition or removal;
- Contaminated soil shall be covered with at least six inches of packed uncontaminated soil or other TPH – non-permeable barrier such as a plastic tarp. No headspace shall be allowed where vapors would accumulate;
- Covered piles shall be designed in such a way to eliminate erosion due to wind or water. No openings in the covers are permitted;

- During soil excavation, odors shall not be evident to such a degree as to cause a public nuisance; and,
- Clean soil must be segregated from contaminated soil.

Plan Requirements and Timing. Conditions shall be adhered to throughout all grading and construction periods for all project components. Monitoring. Planning and Building inspectors shall perform periodic spot checks during grading and construction. SLOAPCD inspectors shall respond to notification of contamination.

AQ-1(f) Construction Activity Management Plan. Prior to commencement of construction for any project for which the estimated construction emissions from the actual fleet are expected to exceed either of the APCD Quarterly Tier 2 thresholds of significance after application of the construction equipment control measures in Mitigation Measure AQ-1(a), the project applicant shall develop a Construction Activity Management Plan (CAMP), designed to minimize the amount of large construction equipment operating during any given time period. The CAMP shall include, but not be limited to, the following elements:

- A Dust Control Management Plan that encompasses all, but is not limited to, dust control measures that were listed under Mitigation Measure AQ-1(b);
- Tabulation of on-and off-road construction equipment (age, horsepower, and miles and/or hours of operation;
- Schedule construction truck trips during non-peak hours to reduce peak-hour emissions;
- Limit the length of the construction work day period, if necessary; and
- Phase construction activities, if appropriate.

Plan Requirements and Timing. Conditions shall be adhered to throughout all grading and construction periods for all project components. Monitoring. Planning and Building inspectors shall perform periodic spot checks during grading and construction.

AQ-1(g) Off-Site Mitigation Fees. For projects where construction-related ozone precursor emissions exceed APCD Quarterly Tier 2 thresholds of significance after application of other mitigation, including a Construction Activity Management Plan, as described in Mitigation Measure AQ-1(f), off-site mitigation fees would be recommended. The off-site mitigation fee shall be calculated in accordance with SLOAPCD's *CEQA Air Quality Handbook*, is $16,000 per ton of ozone precursor emission (NO_X + ROG) over the APCD threshold calculated

over the length of the expected exceedance. Future applicants may use these funds to implement APCD approved emission reduction projects near the project site or may pay that funding level plus an administration fee (2009 rate is 10%) to the APCD to administer emission reduction projects in close proximity to the project.

Plan Requirements and Timing. Off-site mitigation fees shall be assessed at least two months prior to the start of construction. Monitoring. Applicants shall provide Planning and Building with proof that the required fees have been paid upon review of grading plans, and have been implemented prior to the start of the construction activity.

AQ-3(a) Trip Reduction Measures. To reduce overall trip generation and associated air contaminant emissions, future commercial tenants within the Community Plan Study Area shall to establish and maintain employee trip reduction programs that should include, but are not limited to, the following elements:

- Orient buildings toward streets with automobile parking in the rear to promote a pedestrian-friendly environment;
- Provide good access to/from developments for pedestrians, bicyclists, and transit users;
- Implement on-site circulation design elements in parking lots to reduce vehicle queuing and improve the pedestrian environment;
- Provide employee lockers and showers (one shower and 5 lockers for every 25 employees are recommended);
- Parking space reduction to promote bicycle, walking, and transit use;
- Provide and maintain kiosk displaying transportation information in a prominent area accessible to employees and patrons;
- If the project is located on an established transit route, provide improved public transit amenities (i.e., covered transit turnouts, direct pedestrian access, covered benches, smart signage, route information displays, lighting, etc.);
- Provide preferential parking/no parking fee for alternative fueled vehicles or vanpools;
- Install bicycle racks and/or bicycle lockers at a ratio of 1 bicycle parking space for every 10 car parking spaces for customers and employees, or at a ratio otherwise acceptable the SLOAPCD to be determined prior to occupancy clearance;
- Post carpool, vanpool and transit information in employee break/lunch areas;
- Employ or appoint an Employee Transportation Coordinator;

- Implement a Transportation Choices Program. Project applicants should work with the Transportation Choices Coalition partners for free consulting services on how to start and maintain a program. Contact SLO Regional Rideshare at 541-2277;
- Provide for shuttle/mini bus service;
- Provide incentives to employees to carpool/vanpool, take public transportation, telecommute, walk, bike, etc.;
- Implement compressed work schedules;
- Implement telecommuting program;
- Implement a lunchtime shuttle to reduce single occupant vehicle trips;
- Include teleconferencing capabilities, such as web cams or satellite linkage, which will allow employees to attend meetings remotely without requiring them to travel out of the area;
- Provide on-site eating, refrigeration and food vending facilities to reduce employee lunchtime trips;
- Provide preferential carpool and vanpool parking spaces; Provide shower and locker facilities to encourage employees to bike and/or walk to work (typically one shower and three lockers per every 25 employees); and
- Provide off-site improvements to offset contaminant emissions, including: retrofitting existing homes and businesses with energy-efficient devices, replacing transit or school buses, contributing to alternative fueling infrastructure, and/or improving park and ride lots.

The specific components of a trip reduction program that will be recommended for a particular commercial development will be at the discretion of the Planning and Building Department, based on the recommendations of the SLOAPCD.

Plan Requirements and Timing. Future commercial development shall incorporate the listed provisions into development plans or shall submit proof of infeasibility prior to initiation of construction. Monitoring. The Planning and Building Department shall site inspect to ensure development is in accordance with approved plans prior to occupancy clearance. Planning and Building staff shall verify installation in accordance with approved building plans.

AQ-4(a) Odor Reduction Measures. The wastewater treatment plant design shall include technologies to reduce odor emissions, which may include one or more of the following:

- Add-on Controls
- Process Changes
- Carbon Absorption
- Incineration
- Strategic Placement of stacks/vents

Plan Requirements and Timing. The applicant should consult with the SLOAPCD Engineering Division to determine what permits and emissions control devices would be required for the wastewater treatment plant. The required provisions shall be incorporated into development plans or proof of infeasibility shall be submitted prior to initiation of construction. Monitoring. SLOAPCD staff shall verify that odor control measures are implemented prior to operation.

BIO-1(a) Jurisdictional Delineation. A jurisdictional delineation shall be conducted by a County-approved qualified biologist for all properties that may contain wetland features prior to issuance of land use permits. The jurisdictional delineation shall examine the entire project site and shall determine if features on-site fall under the jurisdiction of the USACE, RWQCB, and/or CDFG. The result will be a preliminary jurisdictional delineation report which shall be submitted to the appropriate agencies for review and approval, and permits shall be obtained from each agency where applicable.

Plan Requirements and Timing. The County shall establish a combining designation standard for potential wetlands that will require proof of an approved jurisdictional delineation and all applicable permits shall be submitted to Planning and Building prior to issuance of land use permits. Monitoring. Planning and Building shall not issue permits until the project applicant has demonstrated compliance with all applicable federal and state laws.

BIO-1(b) Avoidance, Minimization, and Mitigation of Impacts to Wetlands and Riparian Habitat. All proposed projects in the Study Area shall be designed to avoid impacts to wetlands and riparian habitats. The County Fire Department *Standard 8: Defensible Space* requires a fuels reduction zone of no less than 100 feet from structures. Therefore, a minimum setback of 100 feet from the edge of delineated wetland and riparian habitat shall be recommended. Activities within the

buffer zone shall be limited to fuels reduction for fire safety purposes only. All wetland and riparian habitat and appropriate buffer zones shall be clearly demarcated on-site with highly visible construction fencing to ensure that these areas are not impacted during construction-related activities.

If wetland and/or riparian habitat cannot be avoided, permits shall be obtained from the appropriate regulatory agency (USACE, RWQCB, and/or CDFG). Loss of such features shall be mitigated at a ratio to be determined by the permitting agencies, but shall not be less than 1:1 (one acre of habitat created to one acre of habitat lost). Mitigation shall occur on-site. Locally native riparian and wetland species shall be used and removal of native species shall be prohibited; however, select willow cuttings and emergent plant division are permissible. A mitigation plan shall be prepared by a qualified biologist and shall include success criteria, monitoring methods, a monitoring schedule, contingency planning, weed control/management provisions, irrigation methods and schedule, and annual reporting requirements. Created riparian and wetland habitat shall be monitored for a minimum of five years or as otherwise determined by the permitting agencies. Prior to commencement of grading, a performance bond shall be filed with the County to complete habitat creation and maintain plantings for the duration of the mitigation program.

If mitigation on-site is not feasible, mitigation off-site at a location approved by the permitting agencies shall occur. Alternatively, payment into an in-lieu fee program and/or purchase of credits at an approved mitigation bank may be allowed by the permitting agencies for impacts to wetlands.

Plan Requirements and Timing. All grading and construction plans shall depict on-site wetland and riparian habitat and appropriate setbacks, and shall be submitted along with applicable permits, a performance bond, and proof of payment into an in-lieu fee program and/or purchase of wetland credits (if applicable) to Planning and Building for approval prior to issuance of land use permits. In addition, prior to issuance of land use permits a letter from the County Fire Department shall be submitted identifying that no riparian vegetation removal is needed for fire safety purposes. Monitoring. Planning and Building shall inspect the site during all phases of construction to ensure compliance with appropriate avoidance and minimization measures. Planning and Building shall oversee implementation and completion of the mitigation program.

The following mitigation measures BIO-1(c), 1(g), 3(a), 3(b), 3(d), 3(e), 3(f), 3(g), 3(h), 3(i), 3(j), 3(l), 3(o), 3(p), 3(q) do <u>not</u> apply to "infill parcels" that are mapped below.

BIO-1(c) Landscape Plan. Development plans for all discretionary land use permits or subdivision projects within undeveloped parcels that are not infill parcels shall include a landscape plan. The plan shall describe the size and species of all trees, shrubs, and lawns proposed to be planted in the Study Area, including the limits of irrigated areas, and shall conform to the County's approved list of local landscape plants. Locally native plant species shall be used to the greatest extent feasible. Invasive and problematic species such as those included on the County's list of potentially problematic plants, identified by the California Invasive Plant Council as invasive plants, and listed by the California Department of Food and Agriculture and/or U.S. Department of Agriculture as noxious weeds shall be prohibited.

The landscape plan shall identify operational procedures to be employed to maintain a healthy landscape with minimum application of fertilizers and pesticides. No rodent control, pesticides, or herbicides shall be used within the non-disturbance buffer zones around wetland and riparian habitats. Operation and management of

the landscape program will be designed to contain the distribution of management chemicals within the project site.

Plan Requirements and Timing. County Planning and Building, in consultation with a qualified biologist (if necessary), shall review and approve the landscaping plan prior to issuance of land use permits. Monitoring. Planning and Building shall inspect the site to ensure compliance with the landscape plan prior to occupancy.

BIO-1(d) Oak Tree Inventory, Avoidance, and Protection Plan. Applicants for discretionary development projects at sites that support oak trees in the Study Area shall prepare an Oak Tree Inventory, Avoidance and Protection Plan as outlined herein. The plan shall be reviewed by a certified arborist or County-approved biologist prior to approval of grading permits, and shall include the following items:

1. Comprehensive Oak Tree Inventory. This shall include the following information:
    - An inventory of all trees at least 5 inches dbh within 50 feet of all proposed impact areas. All inventoried trees shall be shown on maps. The species, dbh, location, and condition of these trees shall be documented in data tables.
    - Identification of trees which will be retained, removed, or impacted. This information shall be shown on maps and cross-referenced to data tables described in Item (a).
    - The location of proposed structures, utilities, driveways, grading, retaining walls, outbuildings, and impervious surfaces shall be shown on maps. The applicant shall clearly delineate the building sites/building control lines containing these features on the project plans. In addition, the plans shall include any fenced areas for livestock or pets and clearance areas prescribed by County fire safety policies.
    - Revised drainage patterns that are within 100 feet upslope of any existing oak trees to remain. All reasonable efforts shall be made to maintain historic drainage patterns and flow volumes to these trees. If not feasible, the drainage plan shall clearly show which trees would be receiving more or less drainage.

2. Oak Tree Avoidance and Protection Guidelines. Grading and development shall avoid the removal of oak trees where feasible and minimize potential disturbance to oaks and their associated

root zones. Final site plans shall obtain concurrence from County staff to ensure compliance with this provision. Tree protection guidelines and a root protection zone shall be established and implemented for each tree or group of trees to be retained that occurs within 50 feet of disturbance areas. The following guidelines shall be included on all development plans:

- All oak trees to remain within 50 feet of disturbance areas (construction or grading) shall be marked for protection and the root zone fenced prior to any grading. The root zone shall be designated as 1.5 times the distance from the trunk to the drip line of the tree. Grading, utility trenching, compaction of soil, or placement of fill shall be avoided within these fenced areas. If grading in the root zone cannot be avoided, retaining walls shall be constructed to minimize cut and fill impacts. The project arborist or biologist must approve any work within the root protection zone.
- Care shall be taken to avoid surface roots within the top 18 inches of soil. If any roots must be removed or exposed, they shall be cleanly cut and not left exposed above ground surface.
- Unless previously approved by the County, the following activities shall be prohibited within the root zone of remaining oak trees: year-round irrigation (no summer watering, unless "establishing" a new tree or native compatible plant for up to 3 years); grading (includes cutting and filling of material); compaction (e.g., regular use of vehicles); placement of impermeable surfaces (e.g., pavement); or disturbance of soil that impacts roots (e.g., tilling).
- Trimming oak branches shall be minimized, especially for larger lower branches, and the amount trimmed in one season shall be limited to 10 to 30 percent of the canopy to reduce stress/shock. If trimming is necessary, the applicant shall either use a qualified arborist or utilize accepted arborist's techniques.

Plan Requirements and Timing. Tree protection guidelines shall be included on all development plans prior to approval. The Oak Tree Inventory, Avoidance, and Protection Plan shall be prepared by a certified arborist or County-approved biologist and shall be submitted to Planning and Building for review and approval prior to issuance of land use permits. Monitoring. Planning and Building

shall inspect the project site during all phases of construction to ensure compliance with the Oak Tree Inventory, Avoidance, and Protection Plan.

BIO-1(e) Oak Tree Mitigation and Monitoring. A certified arborist or County-approved biologist shall be retained by the applicant of a discretionary development project that would remove one or more oak tree to prepare an Oak Tree Mitigation Program that shall include a replacement plan and monitoring plan. These plans shall include cost estimates for the planting plan, installation of new trees, and maintenance of new trees for a period of seven years. A performance bond, equal to the cost of the estimate, shall be posted by the applicant.

1. Replacement Plan. The replacement plan shall outline the number of trees to be replanted, the proposed location(s) for replanting, a schedule for replanting efforts, and the methods to be used for replanting. Replanting of oak trees shall account for not more than one-half of the mitigation recommendation. The plan shall incorporate the following:

    - The plan shall include at a minimum a 4:1 (trees replaced to trees removed) ratio for oak trees removed and a minimum replacement ratio of 2:1 for oak trees impacted (i.e., disturbance within the root zone area) for all oak trees measuring 5 inches dbh or greater.
    - Replacement plantings shall be from regionally or locally collected seed stock grown in vertical tubes or deep one-gallon tree pots. A qualified arborist or biologist shall be retained to monitor the acquisition, installation, and maintenance of all oak tree replacement plantings. Replanting shall occur as soon as possible following ground disturbance activities but shall be avoided during the warmest, driest months (June through September) to the greatest extent feasible. Whenever possible, the location of newly planted trees shall be located: 1) on the north side of and at the canopy/dripline edge of existing mature native trees; 2) on north-facing slopes; 3) within drainage swales (except when riparian habitat is present); 4) where topsoil is present; and/or 5) away from continuously wet areas (e.g., lawns, leach lines).
    - Four-foot diameter shelters shall be placed over each oak tree to protect it from deer and other herbivores, and shall consist of 54" tall welded wire cattle panels (or equivalent

material) and be staked using T-posts. Wire mesh baskets, at least two-foot diameter and two-feet deep, shall be used below ground.

- No herbicides shall be used. A weed mat (covering at least a three-foot radius from center of plant) shall be installed or weeds shall be removed by hand. A weed-free mulch at least three inches deep and covering at least a three-foot radius shall be installed and regularly replenished for each new tree.
- A certified arborist or County-approved biologist shall submit to the County an initial post-planting report outlining the efforts that were undertaken during replanting and shall include an as-built planting plan.

2. Monitoring Plan. A monitoring plan shall be developed by a County-approved qualified biologist for a seven year period following installation of newly planted oak trees and shall outline measures necessary to ensure that these newly planted trees become successfully established. Measures to ensure success shall include, at a minimum, maintaining protections from predation by wild and domestic animals; regular weeding a minimum of twice per year (minimum of once early fall and once early spring); installation of an irrigation system for controlled watering for the first three years. The plan shall include a monitoring schedule, success criteria, remedial measures (should they be needed), and annual reporting for a minimum of seven years or until replanted oak trees have become successfully established as determined by the qualified arborist or biologist with concurrence from the County. The goal at the end of seven years shall be a minimum of 80% survival of new plantings.

Plan Requirements and Timing. The Oak Tree Mitigation Program shall be submitted to Planning and Building for review and approval prior to issuance of land use permits. This document shall identify the final number of replacement trees utilizing the County's replacement ratio identified above. Prior to issuance of land use permits, the applicant shall file a receipt of evidence of posting a performance bond that is acceptable to the County. Prior to occupancy clearance, trees shall be planted, fenced, and appropriately irrigated and the post-planting report shall be filed with Planning and Building. Monitoring. Planning and Building shall conduct site inspections through all phases of the Oak Tree Mitigation Program to evaluate the effectiveness and success of the program. Release of performance bond will require Planning and Building approval.

BIO-1(f) Construction Best Management Practices. In addition to mitigation measures AQ-1(b) and AQ-1(c) in Section 4.3 *Air Quality*, the following construction Best Management Practices (BMPs) shall be incorporated into all grading and construction plans:

- Designation of a 15 mph speed limit in all construction areas.
- All vehicles and equipment shall be parked on pavement, existing roads, and previously disturbed areas, and clearing of vegetation for vehicle access shall be avoided to the greatest extent feasible. Development of new access and ROW roads shall be minimized.
- Designation of equipment washout and fueling areas to be located within the limits of grading at a minimum of 100 feet from waters, wetlands, or other sensitive resources as identified by a qualified biologist. Washout areas shall be designed to fully contain polluted water and materials for subsequent removal from the site.
- Daily construction work schedules shall be limited to daylight hours only.
- Mufflers shall be used on all construction equipment and light trucks shall be in good operating condition.
- Drip pans shall be placed under all stationary vehicles and mechanical equipment.
- All trash shall be placed in sealed containers and shall be removed from the project site a minimum of once per week.
- No pets are permitted on a project site during construction.

Plan Requirements and Timing. All construction and grading plans shall show all applicable construction BMPs and shall be submitted to Planning and Building for review and approval prior to issuance of grading permits. Monitoring. Planning and Building shall conduct site inspections during all phases of construction to ensure compliance.

BIO-1(g) Worker Education. Prior to initiation of all construction activities, including installation of exclusionary/protective fencing, for discretionary land use permit or subdivision projects within undeveloped parcels that are not infill parcels a County-approved biologist shall conduct a training session for all construction personnel. At a minimum, the training shall include a description of all sensitive resource issues on-site as well as the general measures

that are being implemented to protect these resources. A fact sheet printed in both English and Spanish languages shall be provided to all contractors, their employees, and any other personnel involved with the construction of the project, and shall include a description of the sensitive resources on-site, information on their occurrence on-site, a list of construction BMPs outlined in BIO-1(g) and other applicable mitigation measures, instructions to follow when encountering sensitive resources, and all applicable County-required Conditions of Approval.

Plan Requirements and Timing. Worker education training shall be conducted prior to start of construction. Monitoring. A brief report outlining the topics discussed and documenting attendance shall be submitted to Planning and Building within 10 days following the training session.

BIO-1(h) Erosion and Sedimentation Control. Applicants for discretionary development projects in the Study Area shall develop an Erosion and Sedimentation Control Plan to be implemented prior to and during all phases of construction to protect wetland and riparian habitats and other sensitive resources from contamination during construction. Erosion control measures shall include installation of a combination of certified weed-free straw wattles/bales, sand/gravel bags, mulching, erosion control blankets, soil stabilizers, and silt fencing. Silt fencing shall be buried at least six inches below ground and shall be maintained through all phases of construction. All graded areas shall have a native erosion control seed mix installed within four weeks of completion of ground disturbance activities.

Plan Requirements and Timing. The Erosion and Sedimentation Control Plan shall be submitted to Planning and Building for review and approval prior to issuance of land use permits. All grading and construction plans shall show the location of silt fencing, which shall be installed prior to ground disturbance activities. Monitoring. Planning and Building shall monitor installation and maintenance of silt fencing. The site shall be inspected during all phases of construction and within 48 hours of a rainfall event totaling 0.25 inch or greater.

BIO-3(a) San Joaquin Kit Fox Pre-construction Survey. This measure shall apply to all discretionary land use permits or subdivisions within undeveloped parcels that are not infill parcels. No more than 30 days prior to initiation of construction activities within the Community Plan area, a pre-construction survey shall be conducted by a County-

approved biologist and shall encompass the disturbance footprint plus a 100-foot buffer. The pre-construction survey shall include a walking survey of the disturbance area to locate potential dens and other sign indicating the presence of SJKF (e.g., tracks, scat, etc.). The walking survey shall include transects spaced generally 33 feet (10 meters) apart such that they entire disturbance area can be visually inspected. If potential dens are located, tracking medium such as diatomaceous earth (used to take imprints of animal footprints) shall be placed around the den for a minimum of three consecutive days and the area shall concurrently be spotlighted for a minimum of three consecutive nights to determine occupancy. If dens occupied by SJKF, or other indications of SJKF presence, are located on-site or within the 100-foot buffer, no further action on-site shall occur until the USFWS and CDFG have been consulted.

Exclusion zones shall be established around all dens that are occupied or that will be avoided by the development using flagged stakes. Use of fencing shall be avoided. Exclusion zones shall be at the discretion of the County-approved biologist and may include the following:

- Potential den: 50 feet
- Known den: 100 feet
- Natal/pupping den: buffer to be determined on a case-by-case basis in coordination with USFWS and CDFG.

Unoccupied dens that cannot be avoided during construction shall be removed upon approval from USFWS and CDFG through hand excavation by a USFWS-permitted biologist.

A report of the results of the pre-construction survey shall be prepared and shall include a map identifying the location(s) where SJKF or its sign are found.

Planning Requirements and Timing. The County shall ensure that the biologist implementing the above mitigation measure is approved by the USFWS prior to implementation. A report of the pre-construction survey shall be submitted to the County for review and approval prior to issuance of grading permits. Monitoring. The County shall ensure that the pre-construction survey has been completed.

BIO-3(b) San Joaquin Kit Fox Impact Avoidance. This measure shall apply to all discretionary land use permits or subdivisions within undeveloped parcels that are not infill parcels. The following impact avoidance measures shall be implemented throughout the Study Area to reduce the potential for construction related impacts to the SJKF.

- Restrict construction activities to daylight hours.
- All trenches or holes more than two feet deep shall either be fully covered with plywood at the end of each work day or shall include escape ramps. All trenches or holes shall be inspected daily to ensure an animal is not trapped.
- All pipes, culverts, or similar structures shall be inspected for SJKF prior to capping, burying, or moving.
- Use of pesticides shall be avoided to the greatest extent feasible. If use of pesticides cannot be avoided, their use shall be restricted. A zinc phosphide or similar chemical rodenticide may be used if necessary to control rodent populations. All pesticides must be applied in accordance with federal and state standards.
- If a SJKF is found at a project site at any time during the course of construction, all construction activities shall cease and the CDFG and USFWS shall be contacted immediately for guidance.

Plan Requirements and Timing. The County shall ensure that the biologist implementing SJKF avoidance measures is approved by the USFWS prior to implementation. The above impact avoidance measures shall be included on all grading and construction plans prior to approval of land use permits. Monitoring. Planning and Building shall retain a qualified USFWS-approved biologist to monitor all construction activities to ensure compliance.

BIO-3(c) San Joaquin Kit Fox Impact Minimization and Mitigation. Setbacks that exclude structural development and non-agricultural site disturbance shall be provided for a distance of 100 to 400 feet from the top-of-bank (depending on site specific conditions) of the portions of the Estrella River and San Juan Creek that traverse the Community Plan area to allow for habitat preservation and upland movement corridors for SJKF. The area between these buffers on either side of these waterways shall be designated as a Sensitive Resource Area (SRA) by the County. An additional movement corridor with a width of 200 feet shall be designated along the eastern edge of the Community Plan area between Fallingstar Phase II and the neighboring hillside. In addition, all suitable habitat to be

developed shall be restored/preserved either on-site or at a County-approved off-site location within the Shandon Valley at a minimum ratio of 1:1 (impacted:restored). Note that the regulatory agencies (e.g., USFWS and CDFG) may require a higher ratio. It is preferred that restored/preserved parcels occur as contiguous lands, rather than scattered parcels. Restored/preserved parcels shall be preserved in perpetuity through a conservation easement or deed restriction. If lands are to be restored, a restoration plan shall be developed by a County-approved biologist and shall include goals, methods, success criteria, and a timeline, and shall be implemented for not less than five years.

Plan Requirements and Timing. The County shall designate SRAs prior to issuance of land use permits. Applicants shall file proof of a conservation easement or deed restriction for restoration/preservation lands, as well as a restoration plan, with the County prior to issuance of land use permits as applicable.

Monitoring. Planning and Building shall review for compliance prior to issuance of land use permits and spot check during construction to confirm that site disturbance does not occur within designated SRAs.

BIO-3(d) Burrowing Owl Impact Pre-construction Survey. This measure shall apply to all discretionary land use permits or subdivisions within undeveloped parcels that are not infill parcels. Prior to initiation of ground disturbance activities, surveys shall be conducted to determine the presence/absence of burrowing owls where suitable habitat is present. A County-approved biologist shall survey the proposed disturbance footprint plus a 500-foot buffer to identify burrows and owls. Surveys for potential burrows shall be conducted by walking transects spaced generally 33 feet apart (10 meters) such that the entire survey area footprint can be visually inspected. Surveys for burrowing owls shall take place near sunrise or sunset in accordance with CDFG-adopted survey protocols (California Burrowing Owl Consortium 1993) and shall focus on areas where burrows were found. All burrows or burrowing owls identified on-site shall be mapped. Surveys shall take place no more than 30 days prior to construction. Survey results will be valid only for the season during which the survey is conducted.

If no burrowing owls are detected during pre-construction surveys, no further mitigation is recommended.

Planning Requirements and Timing. The County shall ensure that the biologist implementing the above mitigation measure is approved by the USFWS prior to implementation. Survey results shall be reported to the Planning and Building prior to issuance of grading permits. Monitoring. Planning and Building shall review the report and shall ensure that all established buffers are maintained until burrowing owls are no longer present.

BIO-3(e) Burrowing Owl Impact Avoidance. If, during pre-construction surveys, burrowing owls are detected on-site or within the survey area, all burrowing owls and occupied burrows shall be avoided and a buffer shall be established around the occupied burrow(s) by the County-approved biologist. The buffer shall be a minimum of 300 feet around nest burrows and 100 feet around non-nest burrows. Buffers shall be demarcated with highly visible construction fencing and no construction activities shall occur within this buffer until the qualified biologist has determined that the burrow is no longer occupied.

If an occupied burrow cannot be avoided, passive relocation may be implemented by the County-approved biologist with approval from the USFWS and CDFG. No burrowing owls may be trapped. Passive relocation shall be limited to the non-breeding season (typically between April 15 and July 15). Passive relocation may involve installation of one-way doors at burrow entrances for a minimum of five days. Once the County-approved biologist has determined that the burrow is no longer occupied, the burrow may be hand excavated to prevent re-occupancy.

Planning Requirements and Timing. The County shall ensure that the biologist implementing the above mitigation measure is approved by the USFWS prior to implementation. The above impact avoidance measure shall be included on all grading and construction plans prior to approval of land use permits. A report on the implementation of impact avoidance measures used shall be submitted to the County, USFWS, and CDFG upon completion of the construction project. Monitoring. Planning and Building shall retain a qualified USFWS-approved biologist to monitor all construction activities to ensure compliance.

BIO-3(f) Vernal Pool Fairy Shrimp and Longhorn Fairy Shrimp Presence/Absence Determination. This measure shall apply to all discretionary land use permits or subdivisions within undeveloped parcels that are not infill parcels. Prior to land use clearance, the USFWS protocol for wet and dry season surveys shall be conducted to conclusively determine the presence or absence of VPFS and longhorn fairy shrimp on-site where suitable habitat is present. The survey area shall include the disturbance footprint plus a 500 foot buffer. A 90-day report consistent with the current USFWS reporting guidelines shall be prepared to document the methods and results of surveys. Should the presence of VPFS, longhorn fairy shrimp or additional special status wildlife species be determined, a map identifying locations in which these species were found shall be prepared and included in the report. The report shall be submitted to the USFWS for approval.

If the surveys produce a negative finding for the presence of VPFS, then no further mitigation would be recommended.

Plan Requirements and Timing. The applicant shall hire a USFWS-permitted and County-approved biologist to conduct the wet and dry season surveys and prepare a final report of findings. Survey results shall be submitted to the USFWS and Planning and Building, as well as notice of approval of the report by the USFWS shall be filed with Planning and Building, prior to approval of the land use clearance. Monitoring. Planning and Building shall verify completion of the surveys and coordination with the USFWS prior to approval of land use permits.

BIO-3(g) Vernal Pool Fairy Shrimp and Longhorn Fairy Shrimp Avoidance. If VPFS or longhorn fairy shrimp are determined to be present on-site, then the following avoidance measures shall be implemented.

- An exclusion zone shall be established around each vernal pool found during the survey and shall be staked and flagged at the discretion of the County-approved biologist. The exclusion zone shall include areas up to 100 feet where pools are upslope from the construction site and up to 250 feet where pools are downslope of the construction site.
- Erosion control measures shall be implemented to reduce the potential for erosion of sediment into vernal pools. (See BIO-1 (h) above.)

- Work shall be avoided in the exclusion zone after the first substantial rainfall event (>0.25 inches) of the winter season until June 1, and/or until pools remain dry for 72 hours.
- Refueling and washing of vehicles shall occur no less than 100 feet from vernal pools and shall occur within a bermed and lined area to prevent contamination.
- Use of pesticides within 200 feet of vernal pools is prohibited.

Plan Requirements and Timing. The applicant shall hire a USFWS-permitted and County-approved biologist to conduct the wet and dry season surveys and prepare a final report of findings. Survey results shall be submitted to the USFWS and Planning and Building prior to approval of the land use clearance. Monitoring. Planning and Building shall verify compliance with avoidance measures and coordination with the USFWS prior to approval of land use permits. Planning and Building shall inspect the site during all phases of construction to ensure avoidance measures are implemented.

BIO-3(h) Legless and Horned Lizard Surveys, Capture and Relocation. This measure shall apply to all discretionary land use permits or subdivisions within undeveloped parcels that are not infill parcels. Immediately prior to initiation of construction activities within the Community Plan area, capture and relocation efforts shall be conducted for the silvery legless lizard and coast horned lizard. Designated areas in suitable habitat in open space shall be identified within or near the project site for release of captured legless and horned lizards.

Surveys shall be conducted by a County-approved biologist, and shall include raking of leaf litter and sand under shrubs within suitable habitat in the area to be disturbed to a minimum depth of eight inches. In addition to raking, coverboards shall be placed flat on the ground and checked regularly in the survey areas. Coverboards can consist of untreated lumber, sheet metal, corrugated steel, or other flat material used to survey for reptiles and amphibians. Coverboards shall be placed in the survey area two weeks before surveys begin and shall be checked once a week during raking surveys. Captured lizards shall be placed immediately into containers containing sand or moist paper towels and released in designated release areas no more than three hours after capture.

During all grading activities, a qualified biologist shall be on-site to recover any silvery legless lizards or coast horned lizards that may be excavated/unearthed with native material. If the animals are in good health, they shall be immediately relocated to the designated release area. If they are injured, the animals shall be released to a County-approved specialist until they are in a condition to be released into the designated release area.

Plan Requirements and Timing. Prior to issuance of grading permits, the County-approved biologist shall submit the results of the pre-construction surveys for review and approval by the Planning and Building. During construction, a qualified biologist shall perform surveys in accordance with the measures above, and shall report the results to Planning and Building if lizards are found and/or relocated. Monitoring. Planning and Building shall receive a survey summary report from the County-approved biologist that indicates that all salvage measures were adhered to.

BIO-3(i) Western Pond Turtle and Western Spadefoot Surveys, Avoidance, Capture and Relocation. This measure shall apply to all discretionary land use permits or subdivisions within undeveloped parcels that are not infill parcels. Where suitable habitat is present, a County-approved biologist shall conduct spring surveys for western pond turtles and western spadefoots before the onset of construction activities. If any western pond turtles or western spadefoots are found within 1,000 feet of construction activities such as lot grading or road construction, the biologist shall contact the CDFG to determine if moving any individuals is appropriate. If the CDFG approves moving animals, the biologist shall be allowed sufficient time to move the animals from the work site before work activities begin. If the CDFG does not recommend moving the animals, an appropriate buffer from seasonal pools, in-stream pools, and /or nesting sites shall be implemented and no grading or other construction activities shall occur within this buffer unless authorized by the CDFG. Only the County-approved biologist shall participate in activities associated with the capture and handling of these species.

Plan Requirements and Timing. Prior to issuance of grading permits, a County-approved biologist shall submit a report to Planning and Building detailing the results of the survey and if applicable, relocation efforts. Monitoring. Planning and Building shall review the survey report and site inspect during construction for compliance.

BIO-3(j) San Joaquin Whipsnake Surveys, Avoidance, Capture and Relocation. This measure shall apply to all discretionary land use permits or subdivisions within undeveloped parcels that are not infill parcels. Where suitable habitat is present, a County-approved biologist shall conduct surveys for the San Joaquin whipsnake not more than 30 days prior to the onset of construction activities. If any San Joaquin whipsnakes are found within 100 feet of construction activities, such as lot grading or road construction, the biologist shall be allowed sufficient time to move the animals from the work site before work activities begin. Only the County-approved biologist shall participate in activities associated with the capture and handling of these species.

Plan Requirements and Timing. Prior to issuance of grading permits, a County-approved biologist shall submit a report to Planning and Building detailing the results of the survey and if applicable, relocation efforts. Monitoring. Planning and Building shall review the survey report and site inspect during construction for compliance.

BIO-3(k) Pre-Construction Nesting Bird Surveys and Avoidance. This measure shall apply to all development within the Community Plan area. To ensure avoidance of impacts to nesting bird species and raptors ("birds of prey"), including ground-nesting species, all ground disturbing and/or tree removal activities shall occur between September 1 and February 15. If ground disturbing activities and/or tree removal cannot be conducted during this time period, pre-construction surveys for active nests shall be conducted by a County-approved biologist within and adjacent to all anticipated development areas at most two weeks prior to initiation of construction activities. If active nests are located, all construction work must be conducted outside a buffer zone to be determined by the biologist and the CDFG (typically 50 to 200 feet). No direct disturbance to nests shall occur until the adults and young are no longer reliant on the nest site. The biologist shall confirm that breeding/nesting is completed and young have fledged the nest prior to the start of construction within the buffer zone.

If a nest for the fully-protected white-tailed kite and/or golden eagle is found within or adjacent to the proposed project, the CDFG shall be contacted for guidance and no construction activities may occur within a minimum of 500 feet from a white-tailed kite or golden eagle nest until the biologist has confirmed that breeding/nesting is complete and the young have fledged.

Plan Requirements and Timing. A County-approved biologist shall submit survey results to Planning and Building prior to issuance of land us permits. If nests are found, the biologist shall monitor the nest as described above and shall submit results of monitoring efforts to Planning and Building. Monitoring. The County-approved biologist shall be responsible for monitoring activities. Planning and Building shall review survey and monitoring reports.

BIO-3(l) American Badger Surveys and Avoidance. This measure shall apply to all discretionary land use permits or subdivisions within undeveloped parcels that are not infill parcels. Direct take of adult and juvenile badgers shall be avoided. A pre-construction survey for active badger dens shall be conducted where suitable habitat is present prior to initiation of ground disturbance activities by a County-approved biologist and shall include a thorough walking survey of the entire development area between two weeks and four weeks prior to the start of any ground disturbance activity. The survey shall cover the entire area proposed for development plus a 100 foot buffer. Surveys shall focus on both old and new den sites. Dens found within the survey area shall be monitored using a tracking medium, remote camera system, and/or spotlighting at night for a minimum of three days to assess the presence of badgers. Inactive dens shall be collapsed by hand with a shovel to prevent badgers from re-using them during construction.

Active dens located within the survey area shall be avoided during the breeding season (March 1 through June 30). A minimum buffer of 100 feet around the active den shall be demarcated by highly visible construction fencing. The fencing shall be installed one foot above ground to permit movement of badgers in and out of the buffer zone. A County-approved biologist shall use the methods described above to determine when an active den is no longer in use.

Between July 1 and April 30, badgers shall be discouraged from using currently active dens prior to the grading of the site by partially blocking the entrance of the den with sticks, debris and soil for three to five days. Access to the den shall be incrementally blocked to a greater degree over this period. This would cause the badger to abandon the den site and move elsewhere. After badgers have stopped using active dens within the development area, the dens shall be collapsed with a shovel to prevent re-use.

The County-approved biologist shall be present during the initial clearing and grading activity. If badger dens are found, all work shall

cease until the biologist can safely close the badger den. Once the badger dens have been closed, work on the site may resume.

Plan Requirements and Timing. A County-approved biologist shall submit survey results to Planning and Building for review and approval prior to issuance of land use permits. After clearing and/or grading have been started, the biologist shall submit a report to Planning and Development detailing the results of the monitoring. Monitoring. The County-approved biologist shall be responsible for monitoring activities. Planning and Building shall review the final report.

BIO-3(m) Special Status Bat Surveys. This measure shall apply to all development within the Community Plan area. A County-approved, qualified biologist shall conduct presence/absence surveys for special status bats where suitable roosting habitat is present. Bat surveys shall be conducted in accordance with methods set forth by the CDFG in *Distribution, Habitat Associations, Status, and Survey Methodologies for Three Molossid Bat Species* (1998). Surveys shall be conducted using acoustic detectors and by searching tree cavities, crevices, and other areas where bats may roost. Surveys shall be conducted no more than 30 days prior to initiation of construction activities.

Plan Requirements and Timing. A County-approved biologist shall submit survey results to Planning and Building for review and approval prior to issuance of land use permits. Monitoring. Planning and Building shall review the final report.

BIO-3(n) Special Status Bat Impact Avoidance. Areas were bats are located shall be avoided where feasible. If impacts to bats cannot be avoided, exclusionary devices, such as netting, shall be installed by a County-approved biologist around the roost(s) after the bats have left the roost in the evening and shall be monitored for a minimum of three days to ensure that no bats return to the roost. Once it has been determined that the roost is clear of bats, the roost shall be removed immediately. Exclusion of bats must commence prior to establishment of maternity colonies, which varies by species. If a maternity colony has become established, all construction activities shall be postponed within a 500-foot buffer around the maternity colony until it is determined by a qualified biologist that the young have dispersed. Bat roosts shall be removed after the breeding season has ended but before the onset of winter when temperatures are too cold for bat movement.

If a roost is determined by a qualified biologist to be used by a large number of bats (large hibernaculum), installation of bat boxes near the impacted roost would be necessary to reduce the impact to the bat species present. Bat boxes shall be species-specific in dimensions and should mimic a tree hollow or crevice. Bat boxes shall be installed at a height that is appropriate for the bat species and anti-predator measures, such as small metal spikes on the top, shall be included to protect bats.

Plan Requirements and Timing. If bats are to be excluded or a maternity colony is found, a County-approved biologist shall submit monitoring results to Planning and Building prior to approval of land use permits. Monitoring. The County-approved biologist shall be responsible for monitoring activities. Planning and Building shall review the final report.

BIO-3(o) Tulare Grasshopper Mouse Surveys and Avoidance. This measure shall apply to all discretionary land use permits or subdivisions within undeveloped parcels that are not infill parcels. A County-approved, qualified biologist shall conduct presence/absence surveys for Tulare grasshopper mice where suitable habitat is present. Surveys shall be conducted using live traps. Surveys shall be conducted no more than 30 days prior to initiation of construction activities. Upon approval from CDFG, animals may be relocated to an approved location on-site outside of the ground disturbance footprint.

Plan Requirements and Timing. A County-approved biologist shall submit survey results to Planning and Building for review and approval prior to issuance of land use permits. Monitoring. Planning and Development shall review the final report.

BIO-3(p) Wildlife Exclusion Fencing. This measure shall apply to all discretionary land use permits or subdivisions within undeveloped parcels that are not infill parcels. All projects shall have a temporary exclusion fence installed around the perimeter of the ground disturbance footprint to prevent special status and other animals from entering the construction area. The exclusion fence, typically consisting of silt fencing, shall be buried a minimum of six inches below ground, shall have a minimum height of two feet above ground, and shall fully encompass the construction site. The exclusionary fence shall be maintained in good working condition and any damage or other malfunction shall be repaired immediately.

Plan Requirements and Timing. All grading and construction plans shall show the location of the exclusion fence, and shall be submitted to Planning and Building for review and approval prior to issuance of grading permits. Monitoring. Planning and Building shall regularly inspect the project site during all phases of construction to ensure that the exclusion fence is in place and properly maintained.

BIO-3(q) Pet Brochure. This measure shall apply to all discretionary land use permits or subdivisions within undeveloped parcels that are not infill parcels. For all residential developments, a pet brochure shall be prepared to inform prospective homebuyers about the impacts associated with non-native animals, especially cats and dogs. The brochure shall also inform potential homebuyers of the potential for coyotes to prey on domestic animals.

Plan Requirements and Timing. Prior to issuance of land use permits, the applicant shall draft a notice indicating the above information, to be recorded with the final map, subject to approval by Planning and Building. Monitoring. Planning and Building shall check plans for compliance.

BIO-3(r) Night Lighting Standards. Night lighting of public areas shall be kept to the minimum necessary for safety purposes. Exterior lighting within 100 feet of open space shall be shielded and aimed as needed to avoid spillover into open space areas. Decorative lighting shall be low intensity and be less than 25 watts. Excessive night lighting, such as for ball fields or tennis courts, shall not be permitted near open space areas.

Plan Requirements and Timing. Prior to issuance of land use permits, the applicant shall submit a lighting plan to Planning and Building for review and approval. Monitoring. Planning and Building shall site inspect after completion of tract development for compliance.

CR-1(a) Community Plan Resource Protection Policies. The following policies shall be added to the proposed Community Plan Update:

- Archaeological and historical resources shall be protected and preserved to the maximum extent feasible.
- Where preservation is not feasible, the significance of each resource shall be evaluated according to current professional standards and appropriate mitigation measures shall be implemented prior to County approval of any development.

Mitigation may include, but not be limited to, data recovery and graphic documentation (photographs, drawings, etc.).

Plan Requirements and Timing. The Planning and Building Department shall add the recommended policies to the proposed Community Plan prior to Plan adoption. Monitoring. Planning and Building shall ensure the above policies are included in the Community Plan prior to adopting the Plan.

CR-1(b) Historical Buildings. At the time of application for discretionary land use permits or subdivisions that involve the demolition or alterations of buildings or structures greater than 50 years old within the 20-year growth boundary, the applicant shall retain a historian or architectural historian who meets the Secretary of Interior's Professional Qualifications Standards to document and evaluate the historical significance of the affected buildings or structures. If such documentation and evaluation indicates that the building or structure qualifies as a significant historical resource, further documentation to reduce impacts on historical resources shall be provided, including but not limited to archival quality photographs, measured drawings, oral histories, interpretive signage, and/or other measures.

It is further recommended that the County complete an inventory of historical resources within the Shandon community to provide a list of significant properties that may warrant additional treatment in the event of proposed future building alterations, and to determine whether the core area of the community qualifies as a historical district. The inventory should identify significant buildings, structures, and sites; determine which resources contribute to the significance of any such district, and determine where the boundaries of such district are located.

This inventory would narrow the range of buildings and properties that warrant evaluation as potential historic resources.

Plan Requirements and Timing. Historical documentation shall be submitted for review and approval by Planning and Building prior to issuance of any permits for demolition or alteration of structures greater than 50 years old. Monitoring. Planning and Building shall site inspect during grading and prior to occupancy clearance to ensure compliance with any measures recommended through the historical documentation.

CR-1(c) Archaeological Resources. At the time of application for discretionary land use permits or subdivisions that will involve any grading, trenching, or other ground disturbance within the 20-year growth boundary, the applicant shall retain a County qualified Registered Professional Archaeologist to complete a Phase 1 archaeological inventory of the project site. In addition to the surface survey, the inventory shall include sufficient background archival research and field sampling to determine whether subsurface prehistoric or historic remains may be present.

Any prehistoric or historic archaeological remains so identified shall be evaluated for significance and eligibility to the CRHR. Phase 2 evaluation shall include any necessary archival research to identify significant historical associations as well as mapping of surface artifacts, collection of functionally or temporally diagnostic tools and debris, and excavation of a sample of the cultural deposit to characterize the nature of the sites, define the artifact and feature contents, determine horizontal boundaries and depth below surface, and retrieve representative samples of artifacts and other remains. Any excavation at Native American sites shall be monitored by a tribal representative. Cultural materials collected from the sites shall be processed and analyzed in the laboratory according to standard archaeological procedures. The age of the remains shall be determined using radiocarbon dating and other appropriate procedures; lithic artifacts, faunal remains, and other cultural materials shall be identified and analyzed according to current professional standards. The significance of the sites shall be evaluated according to the criteria of the CRHR. The results of the investigations shall be presented in a technical report following the standards of the California Office of Historic Preservation publication "Archaeological Resource Management Reports: Recommended Content and Format (1990 or latest edition)" (http://ohp.parks.ca.gov/pages/1054/files/armr.pdf). Upon completion of the work, all artifacts, other cultural remains, records, photographs, and other documentation shall be curated at the Repository for Archaeological and Ethnographic Collections of the University of California, Santa Barbara, or another facility approved by the Environmental Coordinator. All fieldwork, analysis, report production, and curation shall be fully funded by the applicant.

If any of the resources meet CRHR significance standards, the County Environmental Coordinator shall ensure that all feasible recommendations for mitigation of archaeological impacts are incorporated into the final design and any permits issued for

development. Any necessary data recovery excavation shall be carried out by a County qualified Registered Professional Archaeologist according to a research design reviewed and approved by the County Environmental Coordinator prepared in advance of fieldwork and using appropriate archaeological field and laboratory methods consistent with the California Office of Historic Preservation Planning Bulletin 5 (1991), *Guidelines for Archaeological Research Design*, or the latest edition thereof.

Plan Requirements and Timing: As applicable, the final Phase 1 Inventory, Phase 2 Testing and Evaluation, or Phase 3 Data Recovery reports shall be submitted to Planning and Building prior to final inspection of a construction permit. Recommendations contained therein shall be implemented throughout all ground disturbance activities. Monitoring. Planning and Building shall review and approve the recommended reports prior to issuance of a grading permit. Building inspectors shall make site inspections to assure implementation of approved plans.

CR-1(d) Infrastructure Development. Development of sidewalks, drainage structures, parking facilities, or the installation of underground utilities in Shandon shall be done in a manner that preserves the integrity of historical resources, as feasible. Plans for any such development shall be reviewed by the County Environmental Coordinator or a designated historical consultant. If necessary, Phase 1 archaeological or historical surveys and Phase 2 testing and evaluation shall be completed prior to development, following the same standards and guidelines as outlined under Mitigation Measure CR-1(c) above. Measures to avoid, reduce, or mitigate adverse impacts shall be incorporated into project design.

New recreational sites (parks, trails, and related developments) shall be sited and designed to avoid impacts to archaeological and historical resources. Prior to final approval, proposed recreation sites should be surveyed and redesigned where necessary to avoid archaeological or historical resources, subject to final approval by the County Environmental Coordinator.

Plan Requirements and Timing: The County Environmental Coordinator shall review and approve plans for development of new infrastructure or recreational facilities and ensure that their location and siting is consistent with this recommendation. Monitoring. Planning and Building shall review and approve any recommended reports prior to construction of any new infrastructure, parks, or

recreational facilities. Building inspectors shall make site inspections to assure implementation of approved plans.

CR-1(e) CA-SLO-2618, CA-SLO-2619H, and P-40-038242 Avoidance. Avoidance is the preferred measure for mitigating impacts to archaeological sites CA-SLO-2618, CA-SLO-2619H, and P-40-038242. If avoidance is deemed feasible, the boundaries of theses sites shall be defined through a combination of intensive surface examination and limited subsurface sampling. The boundary definition should be completed by a County approved Registered Professional Archaeologist and should include excavation of a sufficient number of sampling units to define the site's horizontal and vertical extent completely. A Native American tribal representative should participate in the work, and the results should be presented in a technical report following the standards of the California Office of Historic Preservation publication "Archaeological Resource Management Reports: Recommended Content and Format (1990 or latest edition)" (http://ohp.parks.ca.gov/pages/1054/files/armr.pdf). Upon completion of the work, all artifacts, other cultural remains, records, photographs, and other documentation should be curated at the Repository for Archaeological and Ethnographic Collections of the University of California, Santa Barbara, or another facility approved by the Environmental Coordinator. If artifacts are not collected during the fieldwork, they should be described and illustrated fully in the field and reported completely in the technical report. The archaeological site record and map also should be updated to reflect the results of the investigations. All fieldwork, analysis, report production, and curation should be fully funded by the applicant.

Plan Requirements and Timing. The boundary definition shall be completed prior to issuance of any grading or discretionary development permits. The final plans should provide for a buffer of 100 feet between any project activities and the final mapped site boundaries. The final plans should include a notation designating the known archaeological site and buffer as unbuildable area where no grading, construction, utility placement, landscaping, or other ground disturbance or development can occur. The area should not be identified as an archaeological site on the plans. Monitoring. Planning and Building staff shall review and approve the recommended boundary definition report and final plan notations prior to issuance of any permits for demolition, grading, or development. Grading inspectors shall monitor grading activities to ensure avoidance.

CR-1(f) CA-SLO-2618, CA-SLO-2619H, and P-40-038242 Mitigation. If avoidance of any of these sites is not feasible, then prior to issuance of any grading or discretionary development permits, the San Juan Village (Fallingstar Phase I) applicant shall retain a County approved Registered Professional Archaeologist identified on the County's list of approved archaeological consultants to complete a Phase 2 archaeological evaluation of sites CA-SLO-2618, CA-SLO-2619, and P-40-038242. The Phase 2 evaluation shall include any necessary archival research to identify significant historical associations as well as mapping of surface artifacts, collection of functionally or temporally diagnostic tools and debris, and excavation of a sample of the cultural deposit to characterize the nature of the sites, define the artifact and feature contents, determine horizontal boundaries and depth below surface, and retrieve representative samples of artifacts and other remains. Any excavation at Native American sites shall be monitored by a tribal representative. Cultural materials collected from the sites shall be processed and analyzed in the laboratory according to standard archaeological procedures. The age of the remains shall be determined using radiocarbon dating and other appropriate procedures; lithic artifacts, faunal remains, and other cultural materials shall be identified and analyzed according to current professional standards. The significance of the sites shall be evaluated according to the criteria of the CRHR, and the cultural resource records shall be updated to reflect the results of the investigations; such results also shall be presented in a technical report following the standards of the California Office of Historic Preservation publication "Archaeological Resource Management Reports: Recommended Content and Format (1990 or latest edition)" (http://ohp.parks.ca.gov/pages/1054/files/armr.pdf). Upon completion of the work, all artifacts, other cultural remains, records, photographs, and other documentation shall be curated at the Repository for Archaeological and Ethnographic Collections of the University of California, Santa Barbara, or another facility approved by the Environmental Coordinator. All fieldwork, analysis, report production, and curation shall be fully funded by the applicant.

If any of the resources meet CRHR significance standards, the County Environmental Coordinator shall ensure that all feasible recommendations for mitigation of archaeological impacts are incorporated into the final design and any permits issued for development. Any necessary data recovery excavation shall be carried out by a County approved Registered Professional Archaeologist according to a research design reviewed and approved by the County Environmental Coordinator prepared in advance of

fieldwork and using appropriate archaeological field and laboratory methods consistent with the California Office of Historic Preservation Planning Bulletin 5 (1991), *Guidelines for Archaeological Research Design*, or the latest edition thereof.

Plan Requirements and Timing. The Phase 2 archaeological evaluation shall be completed prior to issuance of any grading or discretionary development permits. As applicable, the data recovery program shall be completed and the final reports shall be submitted to Planning and Building prior to issuance of a grading permit. Recommendations contained therein shall be implemented throughout all ground disturbance activities. Monitoring. Planning and Building staff shall review and approve the recommended report (and subsequent mitigation) prior to issuance of any permits for demolition, grading, or development. Grading inspectors shall monitor technical aspects of any grading activities.

CR-2(a) Accidental Discovery of Human Remains. In the event of encountering human remains, then the procedures described in Section 7050.5 of the California Health and Safety Code would be followed, and if those remains are determined to be of Native American ancestry, then the Native American Heritage Commission must be notified by telephone within 24 hours. Sections 5097.94 and 5097.98 of the Public Resources Code describe the procedures to be followed after the notification of the NAHC. In addition, the Conservation and Open Space Element Policy CR 4.4, Section 19.20.035(a) of the County Building and Construction Ordinance, Section 22.10.040 of the County Land Use Ordinance and Public Resources Code 5097shall be implemented in the event that archaeological deposits are unearthed or discovered during ground-disturbing project activities.

Plan Requirements and Timing. This condition shall be in effect throughout construction of any development facilitated by the Community Plan Update. Monitoring. Planning and Building shall check plans prior to approval of grading permits and shall spot check in the field.

CR-2(b) Archaeological Resource Construction Monitoring. Prior to issuance of a construction permit for the San Juan Village (Fallingstar Phase I) Project, the applicant shall submit a monitoring plan, prepared by a Registered Professional Archaeologist identified on the County's list of approved archaeological consultants, for review and approval by the County Environmental Coordinator. The monitoring plan shall include at a minimum:

1. Provisions for work stoppage if deposits of prehistoric or historical archaeological materials are encountered;
2. Provisions for decreasing (or cessation) of monitoring, or increase in the level of monitoring based on observations and resource discovery. Monitoring shall continue until cultural resources are not likely to be encountered, based on the archaeologist's judgment and upon County Environmental Coordinator approval;
3. A list of personnel involved in the monitoring activities;
4. A description of how the monitoring shall occur;

If deposits of prehistoric or historical archaeological materials are encountered during construction activities, all work within 100 feet of the discovery shall be redirected until the archaeological monitor can assess the find, consult with the County Environmental Coordinator, and make recommendations for the treatment of the discovery. A Native American Tribal representative shall be contacted to review the find and consult with the archaeologist regarding recommendations for the treatment of the discovery.

In the event that archaeological deposits are unearthed or discovered during ground-disturbing project activities, Conservation and Open Space Element Policy CR 4.4, Section 19.20.035(a) of the County Building and Construction Ordinance, and Section 22.10.040 of the County Land Use Ordinance, shall be implemented.

Upon completion of all monitoring activities, the consulting archaeologist shall submit a report to the County Environmental Coordinator summarizing all monitoring activities and confirming that all recommended mitigation measures have been met.

Plan Requirements and Timing. This condition shall be in effect throughout construction of the San Juan Village (Fallingstar Phase I) Project. Monitoring. Planning and Building shall check plans prior to approval of grading permits and shall spot check in the field.

D-2(a) LID-Integrated Management Practices. Low Impact Development (LID) is an alternative site design strategy that uses natural and engineered infiltration and storage techniques to control storm water runoff where it is generated to reduce downstream impacts. LID technologies shall be employed by all new residential and commercial development. LID technologies shall be incorporated into the Stormwater System Plan as appropriate. The following LID practices

shall be implemented to minimize post-development runoff peak and minimize water quality impacts:

1. Impervious surface reduction through street and parking lot design, turf pavers, and green rooftops (a lightweight layer of soil and vegetation atop appropriate roofs);
2. Pavement management and landscape design and maintenance;
3. Bioretention cells (soil and plant based filtration devices);
4. Tree boxes to capture and infiltrate street runoff;
5. Vegetated swales, buffers and strips;
6. Roof leader flows directed to planter boxes and other vegetated areas;
7. Permeable pavement;
8. Impervious surface reduction and disconnection;
9. Soil amendments to increase infiltration rates; and
10. Rain gardens, rain barrels, and cisterns.

Only natural fiber, biodegradable materials shall be used.

Since LID is intended to mimic the pre-development regime through both volume and peak runoff rate controls (Haltiner, 2006), the flow frequency and duration for the post-development conditions should be identical (to the greatest degree possible) to those for the pre-development conditions.

Plan Requirements and Timing. Prior to issuance of building permits, future applicants shall submit design plans containing applicable LID design technologies, subject to the review of the Planning & Building in consultation with Public Works. Monitoring. Either or both Departments shall review plans prior to issuance of building permits and site inspect prior to occupancy clearance.

D-2(b) Pollutant Removal Techniques. In addition to LID-integrated management practices recommended by measure D-2(a), the Stormwater System Plan shall incorporate, and all new residential and commercial development that would result in the development of more than one acre of a given area, or as determined appropriate by the Public Works Department shall integrate into the project design available technologies and techniques to remove pollutants from site runoff prior to entering drainage courses or the public right-of-way. Such techniques shall include reduced slope grading, drainage through vegetative zones (e.g., bio-swale) and other options to intercept pollutants being conveyed toward drainage paths.

Technological solutions such as gravelly filter blankets or particulate filters (e.g. Fossil Filters) should also be installed as pollutant-removal solutions. Only natural fiber, biodegradable materials shall be used.

Plan Requirements and Timing. Applicants shall submit a Drainage Plan that graphically illustrates the location and design of pollutant-removal systems. Design plans shall be submitted to Planning and Building, and Environmental Health Services for review and approval prior to issuance of grading permits. Monitoring. Planning and Building and Public Works will monitor installation prior to construction of any structures; however, the applicant shall be responsible for meeting the water quality conditions of their permit.

G-2(a) Reduction of Liquefaction Potential. Prior to development pursuant to the Community Plan Update, appropriate techniques to minimize liquefaction potential shall be prescribed by an engineering geologist and implemented by the applicant prior to issuance of Building Permits. Suitable measures to reduce liquefaction impacts shall include one or more of the following as recommended by a qualified engineer: specialized design of foundations by a structural engineer, removal or treatment of liquefiable soils to reduce the potential for liquefaction, drainage to lower the groundwater table to below the level of liquefiable soils, in-situ densification of soils, or other alterations to the ground characteristics. All structures shall comply with applicable methods of the California Building Code (CBC), as amended at the time of the time of permit approval.

Plan Requirements and Timing. Future applicants shall notify Planning and Building of specific methods to reduce liquefaction potential, as recommended by a qualified engineering geologist, prior to commencement of grading. Measures to reduce liquefaction shall be implemented prior to issuance of Building Permits. Monitoring. Planning and Building staff shall review and approve the recommended report prior to issuance of the Building Permit. Building inspectors shall make site inspections to assure implementation of approved plans. Grading inspectors shall monitor technical aspects of the grading activities.

G-2(b) Soils/Foundation Report Measures. Individual property developers proposing development within the areas identified as having a moderate or high shrink-swell potential shall submit a soils/foundation report as part of the application for any proposed Building Permit(s). To reduce the potential for foundation cracking,

one or more of the following shall be implemented as recommended by a qualified engineer:

1. Use continuous deep footings (i.e., embedment depth of 3 feet or more) and concrete slabs on grade with increased steel reinforcement together with a pre-wetting and long-term moisture control program within the active zone.
2. Removal of the highly expansive material and replacement with non-expansive compacted import fill material.
3. The use of specifically designed drilled pier and grade beam system incorporating a structural concrete slab on grade supported approximately 6 inches above the expansive soils.
4. Chemical treatment with hydrated lime to reduce the expansion characteristics of the soils.
5. Where necessary, construction on transitional lots shall include over excavation to expose firm sub-grade, use of post tension slabs in future structures, or other geologically acceptable methods.

Plan Requirements and Timing. The recommended report shall be provided along with any future building plans and shall evaluate soil engineering properties and provide foundation design recommendations. Any future project applicant shall notify the Building Department prior to commencement of grading. The soils/foundation report shall be provided to the Planning and Building Department for review and approval prior to issuance of Building Permits. Monitoring. Planning and Building shall review and approve the recommended report (and the foundation design) prior to issuance of a Building Permit. Building inspectors shall make site inspections to assure implementation of approved plans. Grading inspectors shall monitor technical aspects of any grading activities.

G-3(a) Geotechnical Investigation. Future applicants for development within 200 feet of the toe of foothill slopes east of the Study Area shall prepare a Geotechnical Investigation. A qualified geotechnical engineer and/or engineering geologist shall prepare thorough geologic/geotechnical studies, and a slope stability analysis which shall incorporate lot-specific recommendations. The slope stability analysis shall at a minimum meet the requirements of CDMG 1997 (Guidelines for Evaluating and Mitigating Seismic Hazards in California, Special Publication 117).

All applicable recommendations of final geotechnical investigations shall be implemented. These recommendations may include but are not limited to:

- Avoidance of or setbacks from historic landslide deposits or areas susceptible to a potential for landslides;
- The restriction of grading in areas with landslide hazards;
- Drainage improvements to ensure potential landslide areas do not become saturated; and
- Limitations on cut and fill slope gradients.

Plan Requirements and Timing. Preliminary geologic and geotechnical reports shall be submitted for review and approval by Planning and Building prior to approval of grading permits. During grading, a County geologist shall review and field-verify preliminary geologic and geotechnical reports. Final geologic and geotechnical reports shall be submitted for review and approval by Planning and Building prior to issuance of building permits. Grading and building plans shall be submitted for review and approval by Planning and Building prior to issuance of grading and building permits. Monitoring. Building inspectors shall site inspect during grading and prior to occupancy clearance to ensure compliance with approved plans.

N-1(a) Construction Equipment. Stationary construction equipment that generates noise that exceeds 50 dB(A) Leq at the boundaries of adjacent residential properties shall be baffled to reduce noise and vibration levels. All construction equipment powered by internal combustion engines shall be properly muffled and maintained. Unnecessary idling of internal combustion engines shall be prohibited. Whenever feasible, electrical power shall be used to run air compressors and similar power tools.

Plan Requirements and Timing. An equipment area with appropriate acoustical shielding shall be designated on building and grading plans. Equipment and shielding shall remain in the designated location throughout construction activities. Monitoring. Planning and Building staff shall perform site inspections to ensure compliance.

N-2(a) Supplemental Noise Study and Abatement for Affected Existing Residences. Prior to issuance of land use permits for new residential subdivisions under the Community Plan, a supplemental noise study shall be provided to Planning and Building that quantifies projected interior and exterior noise levels at outdoor activity areas, accounting

for construction type, distance from roadway, local topography, and shielding by existing buildings, for affected existing sensitive land uses along SR 41. If the County's 65 dB(A) exterior noise standard or 45 dB(A) interior noise standard is determined to be exceeded due to project development, applicants shall contribute their fair share toward a County-administered fund construction of masonry sound walls to abate excessive exterior noise, and/or to enable existing residents to retrofit their homes with noise-reducing building measures to abate excessive interior noise. Noise reduction may be achieved through measures including, but not limited to:

- Installation of doors with a minimum Sound Transmission Class (STC)[8] rating of 50;
- Installation of commercially available windows with STC ratings of 32 or higher;
- Baffling of roof or attic vents; and/or
- masonry walls between roadways and affected outdoor activity areas.

Plan Requirements and Timing. Prior to issuance of land use permits, a noise study prepared by a qualified professional shall be provided to Planning and Building to document post-project interior and exterior noise levels at outdoor activity areas for existing sensitive receptors along SR 41. Future applicants shall contribute their fair share toward a County-administered fund to enable existing residents to retrofit their homes with noise-reducing building measures. If masonry walls are required, then long expanses of walls or fences shall be interrupted with offsets and provided with accents to prevent monotony. Landscape pockets and pedestrian access through walls should be provided. Monitoring. Planning and Building staff shall review noise studies and the incorporation of noise attenuation measures as necessary prior to issuance of a Building Permit. Building inspectors shall make site inspections to assure implementation of approved plans.

N-2(b) Orientation of Outdoor Activity Areas. Prior to issuance of land use permits for new residential development under the Community Plan, documentation shall be provided to Planning and Building that shows that exterior noise levels at all outdoor activity areas for proposed new sensitive land uses along SR 41 do not exceed the County's 65

[8] A single-number rating system for determining the amount of noise reduction provided by a window, door or other building component. The higher the STC rating, the more efficient the component will be in reducing noise. Windows and doors having a minimum STC rating are sometimes required to ensure that a building facade will achieve a minimum Noise Level Reduction (NLR). STC ratings may not be subtracted from exterior noise exposure values to determine interior noise exposure values.

dB(A) exterior noise standard for outdoor activity areas. Outdoor activity areas include backyards and other areas where activities may occur. In order to achieve this standard, outdoor activity areas at noise-sensitive land uses near affected roadways shall be oriented away from the affecting roadway. Alternatively outdoor activity areas should have individual masonry walls that block line-of-sight to the affecting roadway noise sources.

Plan Requirements and Timing. Prior to issuance of land use permits, a noise study prepared by a qualified professional shall be provided to Planning and Building to document post-project exterior noise levels at outdoor activity areas for sensitive receptors along SR 41 and First Street. Site design and building orientation for future development projects shall be submitted to Planning and Building prior to issuance of land use permits. Monitoring. Planning and Building staff shall review noise studies, site and building design, and the incorporation of noise attenuation measures as necessary prior to issuance of a Building Permit. Building inspectors shall make site inspections to assure implementation of approved plans.

N-2(c) Building Façade Improvements. Prior to issuance of land use permits, documentation shall be provided to Planning and Building that shows that interior noise levels in proposed new residential units along SR 41 do not exceed 45 dB(A). Techniques to reduce noise levels by 25 dB(A) include implementation of Uniform Building Code standards and the following:

- Installation of doors with a minimum Sound Transmission Class (STC)[9] rating of 50;
- Installation of commercially available windows with STC ratings of 32 or higher;
- Within residences, location of bathrooms and kitchens toward the noise source, with bedrooms located away from the noise source; Air conditioning or a mechanical ventilation system is installed so that windows and doors may remain closed;
- Exterior walls consist of stucco or brick veneer. Wood siding with a ½" minimum thickness fiberboard ("soundboard") underlayer may also be used;
- Glass in both windows and doors should not exceed 20% of the floor area in a room.

[9] A single-number rating system for determining the amount of noise reduction provided by a window, door or other building component. The higher the STC rating, the more efficient the component will be in reducing noise. Windows and doors having a minimum STC rating are sometimes required to ensure that a building facade will achieve a minimum Noise Level Reduction (NLR). STC ratings may not be subtracted from exterior noise exposure values to determine interior noise exposure values.

- Windows and sliding glass doors are mounted in low air infiltration rate frames (0.5 cfm or less, per ANSI specifications);
- Placement of windows and balconies away from roadways; and,
- Roof or attic vents shall be baffled.

Plan Requirements and Timing. Prior to issuance of land use permits, a noise study prepared by a qualified professional shall be provided to Planning and Building to document post-project interior noise levels at sensitive receptors along SR 41 and First Street. Noise mitigation elements of the future development projects shall be submitted to Planning and Building prior to issuance of land use permits to determine whether all applicable noise mitigation measures have been incorporated. Future applicants shall offer to install necessary noise-related improvements at off-site receptors. Monitoring. Planning and Building staff shall review the incorporation of noise attenuation measures prior to issuance of a Building Permit. Building inspectors shall make site inspections to assure implementation of approved plans.

N-2(d) Truck Delivery Limitations. Truck deliveries to commercial uses on mixed use development sites shall be limited to between the hours of 8:00 a.m. and 6:00 p.m. on weekdays and Saturdays. Delivery areas shall be oriented away from sensitive uses to the extent feasible. No deliveries shall occur on Sundays.

Plan Requirements and Timing. Signs stating these restrictions shall be provided by future developers and posted on-site. Monitoring. Planning and Building staff shall spot check and respond to complaints.

N-2(e) Common Wall Insulation. Pursuant to County Building and Construction Ordinance requirements, common walls between horizontal (side-by-side) and vertical (stacked) mixed use commercial/residential development shall be noise-insulated to provide attenuation of indoor noise levels.

Plan Requirements and Timing. Future applicants for mixed use development shall incorporate the listed provision into development plans. Monitoring. Planning and Building shall conduct a site inspection to ensure development is in accordance with approved plans prior to occupancy clearance.

N-2(f) Sound Barriers for External Equipment. External noise-generating equipment associated with commercial uses (e.g., HVAC units, etc.) that are located in mixed use developments and/or adjacent to residential uses shall be shielded or enclosed with solid sound barriers.

Plan Requirements and Timing. Future applicants for mixed use development shall incorporate the listed provision into development plans. Monitoring. Planning and Building shall conduct a site inspection to ensure development is in accordance with approved plans prior to occupancy clearance.

S-1(a) Soil and Groundwater Assessment. Prior to construction in areas historically used for agriculture, a soil and groundwater assessment shall be completed by a registered soils engineer or soils remediation specialist to determine the presence or absence of regulated contaminants. If soil or groundwater sampling indicates the presence of any contaminant in quantities not in compliance with applicable laws, the Regional Water Quality Control Board (RWQCB) and Department of Toxic Substances Control (DTSC) shall be contacted by future project applicants to determine any necessary remediation efforts. Soils and/or groundwater shall be remediated in compliance with applicable laws. Site assessments that result in the need for soil excavation are recommended to include: an assessment of air resource impacts and health impacts associated with excavation activities; transportation impacts from the removal or remediation activities; and risk of upset management practices shall be employed if an accident occurs on or off the site. A copy of applicable remediation certification from RWQCB and/or DTSC, or written confirmation that a certification is not recommended shall be submitted to the San Luis Obispo County Planning and Building Department prior to issuance of a building permit.

Plan Requirements and Timing. The results of preliminary soil and groundwater tests shall be submitted for review by Planning and Building prior to approval of any future building permits. Monitoring. Building inspectors shall site inspect during grading and during remediation efforts, as applicable, to ensure compliance with the recommended measures.

S-1(b) Groundwater Testing. In the event that groundwater is encountered during grading or construction, all grading or construction work in the vicinity of the groundwater shall be halted and the groundwater shall be tested for Total Petroleum Hydrocarbons (TPH) and Volatile

Organic Compounds (VOCs), and be screened for common agricultural groundwater pollutants using EPA testing methods. If one or more pollutants are found in unsafe concentrations, the water shall be treated to a concentration below RWQCB standards by a County approved registered environmental assessor or environmental engineer in consultation with RWQCB before the water can be released into the watershed. Such testing can occur in advance of grading activities to preclude the possibility of watershed contamination.

Plan Requirements and Timing. During construction, a qualified specialist shall review and field-verify the results of the recommended testing of any groundwater, should it be encountered during construction activities. Monitoring. Building inspectors shall site inspect during grading and during remediation efforts, as applicable, to ensure compliance with the recommended measures.

S-2(a) Underground Service Alert. Prior to construction, Underground Service Alert (i.e., USA North) shall be contacted at 811 in order to determine the location of underground pipelines relative to construction activities to ensure pipelines are not damaged or ruptured during construction. If during construction/grading activities the contractor discovers an unknown waste or debris which is believed to involve hazardous waste and/or materials, the contractor shall immediately stop work in the vicinity of the suspected contaminant, remove workers and the public from the area, and contact the County Planning and Building Department. If hazardous materials (including contaminated soil or groundwater) are uncovered during construction activities, the County and/or the project contractor and authorized agents thereof shall take appropriate measures to assure worker safety and provide for assessment and remediation in accordance with local, state, and federal regulations.

Plan Requirements and Timing. Future developers shall contact USA North prior to construction activities. Monitoring. Planning and Building shall confirm USA North was contacted and that construction activities would not interfere with existing underground pipelines.

T-1(a) Development Funding Mechanism for Traffic Improvements Within the Plan Area. As part of the Community Plan Update, a funding mechanism shall be established to construct and implement necessary improvements identified in mitigation measures T-1(c) through T-1(e). The funding mechanism shall consist of either an area-wide fee where applicants for future development will be required to pay impact fees or a requirement that future applicants

"front" the cost of the improvements and be reimbursed as land uses are developed.

Plan Requirements and Timing. Future project applicants shall pay for the development of a detailed funding plan to address construction and implementation of the recommended Community Plan Update mitigation measures. Monitoring. Prior to issuance of land use permits, Planning and Building will review the funding plan and ensure completion of the reimbursement agreement.

T-1(b) Development Funding Mechanism for Traffic Improvements Outside the Plan Area. A funding mechanism shall be established to construct and implement necessary off-site improvements located within the City of Paso Robles identified in the February 2010 Wood Rogers Transportation Impact Study (i.e., widening of SR 46 and improvements to the SR 46/ US 101 interchange). Regional projects that shall contribute their fair share of fees are those which would utilize SR 46 as their primary access to urban services. The fee mechanism would be developed by the County. The funding mechanism shall consist of either an area-wide fee where projects that are located within the Study Area will be required to pay impact fees that would be provided to the City of Paso Robles or a requirement that applicants for future applicants "front" the cost of the off-site improvements and be reimbursed as land uses are developed. A preliminary fair-share estimate for the planned future SR 46 East grade-separated interchanges at Jardine Road, Union Road, and Golden Hill Road is included in Table 1 of Appendix F, *Transportation Impact Study*.

Plan Requirements and Timing. Future project applicants shall pay for the development of a detailed funding plan to address construction and implementation of the recommended off-site improvements within the City of Paso Robles. Monitoring. Prior to issuance of land use permits, Planning and Building will review the funding plan and ensure completion of the reimbursement agreement.

T-1(c) West Centre Street-McMillan Canyon Road and SR 46 East Community Plan Improvements. Future applicants for development under the Community Plan Update shall pay fair share fees to construct a grade-separated interchange at the intersection of West Centre Street-McMillan Canyon Road and SR 46 East. As an alternative, future applicants shall provide for:

- *A traffic signal;*

- *Intersection modifications, including dual northbound left-turn lanes, a single northbound shared through-right lane, and a dedicated southbound left-turn; and*
- *A dedicated right-of-way footprint to allow for construction of a future grade-separated interchange at West Centre Street-McMillan Canyon Road and SR 46 East.*

As these improvements would occur within Caltrans jurisdiction, an encroachment permit from Caltrans would be required if the cost of the improvements is less than three million dollars. A Project Study Report (PSR) and encroachment permit from Caltrans would be required if the cost of the improvements exceeds three million dollars.

Plan Requirements and Timing. Prior to issuance of land use permits, future applicants shall contribute fair share fees to a funding mechanism established for the preparation of applicable studies and implementation of recommended improvements. Monitoring. Caltrans and the County of San Luis Obispo shall site inspect to ensure installation of improvements prior to occupancy clearance.

T-1(d) East Centre Street (SR 41) and SR 46 East Community Plan Improvements. Future applicants for development under the Community Plan Update shall pay fair share fees to construct a grade-separated interchange at the intersection of East Centre Street (SR 41) and SR 46 East. As an alternative, future applicants shall provide for:

- *A traffic signal;*
- *A northbound right-turn lane (overlap right-turn phase); and*
- *A dedicated right-of-way footprint to allow for construction of a future grade-separated interchange at East Centre Street and SR 46 East.*

As these improvements would occur within Caltrans jurisdiction, an encroachment permit from Caltrans would be required if the cost of the improvements is less than three million dollars. A PSR and encroachment permit from Caltrans would be required if the cost of the improvements exceeds three million dollars.

Plan Requirements and Timing. Prior to issuance of land use permits, future applicants shall contribute fair share fees to a funding mechanism established for the preparation of applicable studies and implementation of recommended improvements. Monitoring.

Caltrans and the County of San Luis Obispo shall site inspect to ensure installation of improvements prior to occupancy clearance.

T-1(e) Centre Street Two-Way Left-Turn Lane. Future applicants for development under the Community Plan Update shall pay fair share fees into a funding mechanism established to widen the two-lane arterial segment of Centre Street from First Street through Toby Way, including both of these streets intersections with Centre Street, to provide a continuous two-way-left-turn median lane (TWLTL) in order to provide for adequate turn-lane movements/ storage at key intersections and mid-block locations. This improvement shall include southbound left-turn channelization on First Street approach to Centre Street. Addition of a TWLTL for this segment mitigates the need for signals at First Street and Toby Way.

As these improvements would occur within Caltrans jurisdiction, an encroachment permit from Caltrans would be required if the cost of the improvements is less than three million dollars. A PSR and encroachment permit from Caltrans would be required if the cost of the improvements exceeds three million dollars.

Plan Requirements and Timing. Prior to issuance of land use permits, future applicants shall contribute fair share fees to a funding mechanism established for the preparation of applicable studies and implementation of recommended improvements. Monitoring. Caltrans and the County of San Luis Obispo shall site inspect to ensure installation of improvements prior to occupancy clearance.

T-1(f) West Centre Street-McMillan Canyon Road and SR 46 East San Juan Village (Fallingstar Phase I) Project Improvements. The applicant shall provide the following intersection improvements at West Centre Street-McMillan Canyon Road and SR 46 East:

- *A northbound acceleration and merge lane from West Centre Street to westbound SR 46;*
- *A dedicated northbound left and combination through-right turn lanes (on West Centre Street); and*
- *Ensure that the second westbound SR 46 through lane, as planned in the SR 46 Corridor improvement project, is provided by year 2015 at this intersection.*

As these improvements would occur within Caltrans jurisdiction, an encroachment permit from Caltrans would be required if the cost of the improvements is less than three million dollars. A PSR and associated approval from Caltrans would be required if the cost of the improvements exceeds three million dollars.

Plan Requirements and Timing. Improvements shall be installed prior to occupancy clearance. The applicant shall construct and implement the improvements under a Caltrans encroachment permit or PSR. Monitoring. Caltrans and the County of San Luis Obispo shall site inspect to ensure installation of improvements prior to occupancy clearance.

T-1(g) East Centre Street and SR 46 East San Juan Village (Fallingstar Phase I) Project Improvements. The applicant shall provide the following intersection improvements at East Centre Street and SR 46:

- *A north-to-west acceleration and merge lane;*
- *A dedicated north-to-west left-turn lane; and*
- *Ensure that the second westbound SR 46 through lane, as planned in the SR 46 Corridor improvement project, is provided by year 2015 at this intersection.*

As these improvements would occur within Caltrans jurisdiction, an encroachment permit from Caltrans would be required if the cost of the improvements is less than three million dollars. A PSR and associated approval from Caltrans would be required if the cost of the improvements exceeds three million dollars.

Plan Requirements and Timing. Improvements shall be installed prior to occupancy clearance. The applicant shall construct and implement the improvements under a Caltrans encroachment permit or PSR. Monitoring. Caltrans and the County of San Luis Obispo shall site inspect to ensure installation of improvements prior to occupancy clearance.

T-4(a) Public Transit Service Improvements. Future applicants shall coordinate with San Luis Obispo Regional Transit Authority (RTA) and San Luis Obispo Regional Rideshare to implement the following improvements to existing public transit services:

- Expand the existing Dial A Ride program to provide afternoon/evening and weekend transportation on a regular

schedule in consultation with San Luis Obispo Regional Transit Authority (RTA);

- At sites determined in consultation with RTA, provide improved public transit amenities (i.e., covered transit turnouts, direct pedestrian access, covered bench, smart signage, route information displays, lighting etc.);
- At sites determined in consultation with RTA, provide a display case or kiosk displaying transportation information in a prominent area accessible to employees and residents; and
- Commercial uses with more than five employees shall implement a Transportation Choice Program to reduce employee commute trips in consultation with San Luis Obispo Regional Rideshare. Information and support for carpools and vanpools shall be provided, and the formation of a telecommuting center shall be considered.
- Construct a Park & Ride lot in the Community Plan Study Area. The site shall be located in an area with existing pavement or other site disturbance.

Plan Requirements and Timing. The recommended public transit improvements shall be implemented and/or constructed prior to issuance of occupancy clearance. Monitoring. Prior to issuance of occupancy permits, Planning and Building shall review the public transit improvements and ensure compliance.

W-1(a) Importation of State Water Project. The County has contract rights to request a portion of the State Water Project water each year, in accordance with a long term water service contract with the Department of Water Resources. Future applicants shall fund the County's pursuit of this State Water Project allocation to offset impacts to groundwater resources.

Plan Requirements and Timing. The County shall attain their State Water Project allocation from the Department of Water Resources and water from their allocation shall be available to the Community Plan area. Monitoring. The County shall monitor water demand as development under the Community Plan occurs to anticipate the timing for attaining the 100 AFY State Water Project allocation.

W-1(b) Retrofit Program for Existing Development. Future applicants shall fund the County's development and implementation of a toilet retrofit program to replace existing high flow toilets (5.5 gallons per flush) with low flow toilets (1.28 gallons per flush) in existing residential and commercial structures. It is assumed that approximately two-

thirds of the existing 373 residential units within the Study Area have high flow toilets and that up to 70% of those toilets could be converted to low flow toilets (assumptions based on Santa Barbara County Resource Management Department, Groundwater Thresholds Manual, 1992). The annual savings per person is approximately 6,163 gallons. Return flow are estimated to be 31%. Therefore, this program could save up to approximately 8 AFY. Additionally, existing commercial uses would further reduce water demand if they participated in the program; however, data is not available to estimate the amount water savings for these uses.

Plan Requirements and Timing. The County shall oversee the toilet retrofit implementation program prior to issuance of grading permits for the first project pursuant to the Community Plan Update. Monitoring. Planning and Building shall implement the retrofit program through the construction permit process.

W-1(c) Water Conservation Measures. New residential and commercial development within the Community Plan area shall implement the following water conservation measures.

- Installation of low flow or dual flush toilets;
- Installation of low flow shower heads and water faucets;
- Installation of energy efficient appliances;
- Drip irrigation or micro-sprayers on appropriate landscaped areas;
- Use of devices such as soil monitors and rain shutoff devices for all automatic irrigation systems;
- Use of mulch in non-turf areas;
- Use of permeable hardscape to the extent feasible; and,
- Use of soil amendments to increase soil moisture holding capacity of soil.
- Use of native low water using landscaping.

Plan Requirements and Timing. Future applicants shall demonstrate to Planning and Building successful implementation of all applicable water conservation measures prior to final building inspection. Monitoring. Planning and Building shall review planning application materials to ensure that all applicable water conservation measures have been implemented.

W-1(d) Groundwater Offset. New nonagricultural use of groundwater shall be offset through one or more of the means listed below prior to issuance of construction permits for any of the following new development: 1)

development resulting from new land divisions, 2) land use permits that result in greater than four (4) dwelling units, 3) development of more than 9,999 square feet of floor area for uses listed under the industry, manufacturing and processing land use group, 4) development of more than 2,499 square feet of floor area for uses listed under all other non-residential use groups.

a. Retrofit high-flow toilets and other plumbing fixtures within the Paso Robles Groundwater Basin with low-flow toilets and plumbing fixtures;
b. Participate in a Board of Supervisors-approved pluming retrofit program for the Paso Robles Groundwater Basin;
c. Use the California Urban Water Conservation Council's (CUWCC) best management practices for water conservation;
d. Pay a "fair share" of the costs for delivering State water in excess of CSA-16's 2011 allocation of 100 acre-feet per year;
e. Participate in a Board of Supervisors-approved lot retirement program for the Paso Robles Groundwater Basin;
f. Participate in the County's Transfer of Development Credits (TDC) program pursuant to Chapter 22.24, provided eligible sending sites are located within the Paso Robles Groundwater Basin, and receiving sites shall not be eligible for a density bonus. The receiver site will receive credit for the water demand that the sending site would have otherwise used, if developed. The ground water off-set shall be determined at the same time the receiver site determination is made.
g. Participate in a Board of Supervisors-approved rural water conservation program that results in reducing groundwater pumping within the Paso Robles Groundwater Basin.
h. Participate in a Board of Supervisors-approved fee program that results in reducing groundwater pumping within the Paso Robles Groundwater Basin.

W-2(a) Water Master Plan Update. The CSA 16 Water Master Plan shall be updated to include the proposed Shandon Community Plan Update and corresponding expansion of the CSA 16 service boundary. The update should be guided by the County Public Works Department and be funded by future developers in proportion to the increase their development will have on the area covered by the CSA 16 Water Master Plan. Additional funding to prepare the Master Plan Update would come from source identified in the Public Facilities Financing Plan for the Shandon Community Plan Update. The Master Plan Update will serve both the existing community and new development and should accomplish, at a minimum, the following:

1) Provide project-specific evaluations of velocities and pressure throughout the system at various demand scenarios.
2) Provide project-specific hydraulic modeling and fire flow analyses to evaluate impacts to operating pressures and fire flow availability in the existing and proposed water sys tem and determine what, if any, water system upgrades are recommended for each project.
3) Provide design criteria and standards for various components of the water system, including pipe sizing, well capacities, fire flow requirements, pipe velocities and pressures.
4) Provide phasing recommendations for upgrades to the water system.

Plan Requirements and Timing. The Water Master Plan Update is to be completed prior to approval of development plans. Monitoring. Development plans shall be submitted to the County for approval. Compliance with the recommendations provided by the Master Plan Update should be reviewed for the water system components.

W-3(a) Wastewater Disposal and Storage Capacity. The proposed WWTF storage and disposal facilities shall be designed to allow phasing to eventually accommodate full buildout of the Community Plan Update.

Plan Requirements and Timing. The proposed WWTF shall be designed to allow phasing to eventually accommodate full buildout of the Community Plan prior to issuance of construction permits for development pursuant to the Community Plan Update. Monitoring. Development plans for the WWTF shall be submitted to Planning and Building and Public Works for approval.

W-3(b) Septic Tank and Leachfield Site Plan. Future applicants for development on the northwest commercial parcel shall develop and submit a septic tank and leachfield site plan, as well as percolation tests and borings in accordance with County leachfield design/construction requirements. The applicant shall demonstrate sufficient leachfield percolation for proposed uses, in accordance with County standards.

Plan Requirements and Timing. Future applicants for development on the northwest commercial parcel shall submit a septic tank and leachfield site plan to Planning and Building with Development Permit Application. Monitoring. County Environmental Health and Building Department staff shall review plans prior to issuance of a development permit.

Appendix E

Wood Rodgers Inc. Technical Memorandum, Shandon Community Plan Update, Draft Transportation Impact Fee Program

Appendix F

Background Maps

1) Contour Map

2) 2011 Assessor Parcel Map Showing Williamson Act Parcels


SEC 16
SEC 19
SEC 20
SW 1/4 OF
THE SW 1/4
OF SEC 21

2011 Assessor Parcel Map
Showing Williamson Act Parcels
From Table 3.4

Noticed for contract non-renewal

Remaining in contract

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