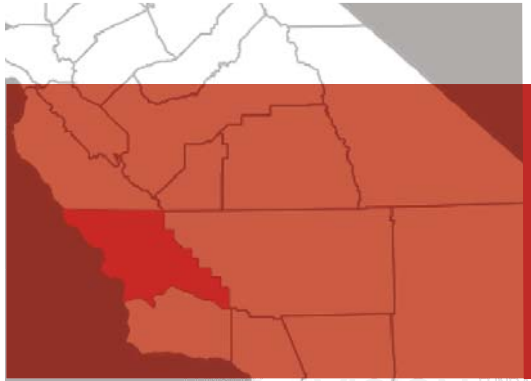


5

OPPORTUNITIES & CONSTRAINTS

Figure 5.1 Public participation

Gaining public and political support, changes in how money is spent, and policy amendments. These are some of the issue areas that must be addressed in order to implement the strategic growth design alternatives

What Issues Does Our Design Concept Create?

The design alternatives, Downtown Development and Transit Center, Corridor Infill Development, and Community Expansion Development in chapter 4 promote alternatives to traditional land use practices that reduce the cycle of auto dependency by connecting compact development to transit options. In doing this the design alternatives help California meet legislative goals to reduce VMTs and GHG emissions. The design alternatives allow for and encourage changes to current land use and transportation planning. It is necessary to consider the number of social and political issues that will be generated as the approach to planning changes. These issues include, but are not limited to, gaining public and political support, changes in how money is spent, and policy amendments. These are some of the issue areas that must be addressed in order to implement the strategic growth design alternatives presented in chapter 4.

Strategic Growth: Political and Public Support Introduction

One of the major obstacles associated with strategic growth is gathering the political will necessary to ensure that policies are changed to facilitate designs that implement strategic growth principals. The natural human tendency to resist change leads to typical status quo development. This tendency to resist change often spurs NIMBY "Not In My Back Yard" groups to establish formidable opposition to innovative projects due to fear of the unknown. To alleviate reasonable fears associated with strategic growth and to truly obtain political and public support, the County will need to clearly define what strategic growth means for the County and to communicate to all stakeholders what potential impacts it will have in the County. Strategic growth is more complex than conventional auto-oriented development and requires more public involvement and collaboration. The County will need to make all stakeholders aware of the political, economic, social, and environmental costs and benefits created by implementing strategic growth.

Transit System Funding, Congestion, Public Perception

To be successful our designs will require a more robust transit system, focused on buses, from the outset. The system must be immediately responsive to new transit friendly developments, such as Transit Oriented Development (TOD). TODs require an operational transit system to be successful. A number of potential ways to subsidize and fund a system of this type have been proposed. Some options include a combination of taxes, grants, group transit passes and merging services (e.g. school district service with municipal bus service). Broad support for some of these programs will be necessary to support a successful transit system.See AppendixG. Each of these funding mechanisms brings its own set of political issues with it.

Increasing density which increases population in a particular area is suggested by the design alternatives in chapter 4 and will increase congestion. The models of the future transportation network in the County show the potential for highway congestion at peak travel times. See Appendix F. In some larger metropolitan areas this sort of congestion can be favorable for transit and TOD, because transit systems have priority over single occupancy vehicles (i.e. "highway flyer" buses in High Occupancy Vehicle (HOV) lanes, commuter rail, etc.).

Transit Oriented Development

Figure 5.2 Transit Oriented Development- Housing

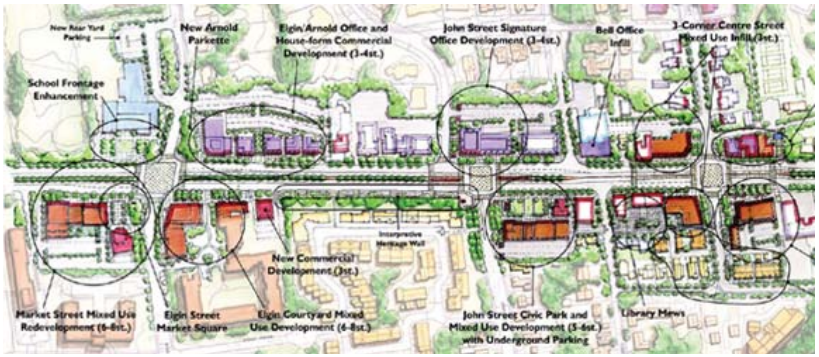


Figure 5.3 Transit Oriented Development

The transportation network within the County is limited. Inner-city buses depend on the same roads as automobiles and are prone to delays from the same congestion due to this limited network.

As previously discussed in chapter 4, mode choice, in the most general terms, is influenced by time, cost, and comfort. A situation where buses don't have priority in a congested setting negatively impacts their potential viability and their potential ridership. In the future, bus only lanes and priority for buses in HOV lanes are possible to overcome this impediment. However they are presently uncommon in this County.

Caution should also be employed when considering whether TODs can influence people's choice of transportation. The "if you build it they will take transit" assumption does not always prove to be true. An example is as follows:

In one study of residents in a neighborhood adjacent to BART in the Bay Area it was found that if the commuter was traveling to downtown San Francisco and had to pay for parking, there was an 82% likelihood the trip would be made on transit. On the other hand, if the person commuted to a non–San Francisco destination with free parking only 4% of the trips were made on transit. (TCRP, 2004, p 140) Clearly, support for TOD development must be built into the planning process before development begins.

These realities should not affect the goal of expanding the transit network, but they do speak to a need to carefully consider where new developments are located within the County and region. It is critical that planners take a comprehensive approach to the transit network. That network should address the issues of parking costs, broad based transit passes, convenience and comfort, along with service levels. These issues must be thought through, in order for the implemented transit system to attract enough new riders to ultimately become self sustaining.

Please refer to Appendix F for further information regarding Transit System Design Goals and Policies.

Parking Design: Policy Requirements and Public Perception

Parking policy is one of the most fundamental issues in making alternative modes of transportation competitive, and it is also one of the most controversial. Shifting to a paradigm where parking is not always free of charge and easy to find, and creating parking maximums (rather than minimums as is common in most zoning codes) is politically difficult. Despite this, the issue of parking, both spatially for mixed-use development and as a support for alternative modes to the automobile, is fundamental. These elements have been addressed in our design proposal and recommended polices . Please refer to Appendix F for further information regarding Transit System Design Goals and Policies.

Each proposal related to parking policy will individually require extensive outreach that explains the rationale and helps to change the perceptions of the public, and the elected and appointed officials. Adjustments to parking requirements will positively affect future development and should be strongly considered under strategic growth planning.

The Private Market: Developer Support

Compact transit-oriented housing, working, and shopping areas continue to become popular because of congestion developed from traditional development.

Figure 5.4 Transit Oriented Development

Hercules, CA

Three years after moving in to the development residents still have to drive or take a long walk to reach retail since the the provided commercial spaces were slow to materialize. (Kilduff, 2007).

How much demand is there for this type of development in San Luis Obispo County? Is the private market ready to develop?

Though it is uncertain what willingness exists to build to the level of density the proposed design suggests, it is clear that there is potential for better outcomes if the development community is a partner in the process. A survey of developers on this subject indicated that having clear designations of community and political support, up front in the process, was rated as the single most important factor affecting the decision to develop TOD. Not unexpectedly, developers in the same survey were also interested in the areas with the most rent potential. (TCRP, 2004, p. 186). This emphasizes the need to work hard to provide zoning for dense development in desirable locations. A recent example from the New Urbanist Waterfront Development District in Hercules, CA.

Collaboration with private developers is crucial to implement successful, cost effective, and marketable strategic growth planning efforts. Getting developers on track with the strategic growth planning process is critical to facilitate the construction of future developments that meet the goals of strategic growth.

Development: Expectations

Caution should be taken when deciding where new developments should go. Planners need be prepared for potential criticisms of strategic growth developments. Existing downtowns and neighborhoods took many decades to reach their potential and the same will potentially be true for projects that use strategic growth principals. It will be difficult to undo decades of autocentric development and this should be made clear in the outreach. Education can temper expectations of overnight changes.

Implementation: General Plan Compliance, Regional Cohesion, Public Support

One of the major issues associated with the process of implementing strategic growth in the County is the presence of separate general plans and zoning ordinances for each incorporated community. In addition County Land Use and Area Plans affect the unincorporated communities and rural areas of the County. These documents may conflict with one another and/or a regional plan. Each community within the County has a keen understanding of the unique challenges faced by their individual locality. They have created general plans and zoning ordinances that address their specific needs and have established a vision of what their individual community should be in the future.

It is necessary to make sure that each community and the County is part of a comprehensive regional vision. This does not take away the ability for cities to remain in charge of creating their individual community visions via general plans and zoning ordinances. Successful implementation of strategic growth at the regional level will not be possible unless each city within the region is engaged in the process and seeks to ensure that their community vision is in sync with the greater regional vision for strategic growth.

Chapter 6 offers a conceptual framework that may serve as a base for a regional vision. It proposes an overall vision, which is aligned with the ideals established by various stakeholders such as cities, the County, developers, nonprofit organizations, and the general public, changes towards effective and sustainable land use decisions.

IMPLEMENTATION

Implementation of Strategic Growth

Strategic growth development is a process requiring a lot of planning and collaboration. It will take a long time. A long-range, regional approach to strategic growth development is essential. Therefore, it is necessary to implement strategic growth incrementally or in phases.

To accomplish the major goals of sustainability (as defined in chapter 1), the County should create a working, comprehensive strategic growth plan which can be implemented by all legislative bodies within the County. This will enable the County to balance land use with resources to ensure that development is sustainable. In order to implement strategic growth for the County, the following components are recommended as part of the Implementation Process for a Countywide Strategic Growth Plan:

1. **Public Awareness**
2. **Collaboration**
3. **Phasing of Growth**
4. **Strategic Growth Mechanisms**

These components provide instructions on how to implement a Countywide Strategic Growth Plan (Plan). It is essential that a clear and comprehensive framework is in place for the Plan to succeed. The Plan must also possess some flexibility to take advantage of potential policy changes at the state or federal level. Decision makers can use the Plan as a guide when making difficult choices regarding strategic growth in the future.

Public Awareness

Public awareness of stakeholders is paramount. The success of strategic growth implementation is dependent on aligning the public's vision of growth with a Countywide Strategic Growth Plan. They must see eye to eye. This is why a greater understanding of what strategic growth is for all stakeholders in the County is important. With one definition an open dialogue among all stakeholders can foster collaboration. Charettes, facilitations, and mediations should be utilized throughout the County to engage the public in dialogue with decision makers. This dialogue should include the opportunities and constraints associated with strategic growth.

For example, the continual depletion of groundwater throughout the County is a contentious issue requiring tough decisions. In conjunction with conservation programs, future development will need to be more compact in order to reduce water usage. The public needs to understand the difficult choices which lay ahead due to an increasing population and the continual depletion of key resources such as potable water.

Many case studies have incorporated public awareness as a crucial process in developing and implementing smart growth principles. The case studies on strategic growth_identify that the most successful projects were generated by extensive public and private partnership. (see Appendix I)

Incorporating community participatory workshops (with user-friendly material) to obtain public input at or near the beginning of projects and plans increases the level of effective implementation. Places such as Addison Circle in Texas, Crawford Square in Pittsburgh, Pennsylvania, Uptown District in San Diego, California, Central District Specific Plan of Pasadena, California, and Baldwin Park in Orlando, Florida all held visionary workshops to obtain input from the public.

Due to these workshops and meetings, public outreach and education is enhanced and helps to engage the public in the project or formation of the plans.

Figure 6.1 Public Awareness

Enhancing public awareness programs improves quality of life by involving more citizens in a dialogue process regarding their community and its future development. One form of public awareness can be done through media outlets such as local newspapers and news stations. They can effectively deliver community-related information to a diverse audience. Also local colleges and businesses can act as key resources to convey pertinent information.
For example, the city of Berkeley, California builds on its existing public programs to engage the citizens and businesses in achieving a community wide goal.

Other plans such as the Water Resource Element and Transportation Element of Lancaster County, Pennsylvania, the Marin Countywide Plan Update, Marin County, California, the 1998 Water Conservation Plan, Phoenix, Arizona, and the Central District Specific Plan, Pasadena, California follow a similar protocol. All approach plan development through public awareness campaigns and public input first, and then they generate plans by incorporating separate education goals to implement plans effectively.

The aforementioned case studies exhibited one or more of the following attributes please see Appendix I for in-depth analysis of all the strategic growth case studies:

- *Citizen-led visioning exercise.*
- *Public-private partnerships.*
- *Collaboration among stakeholders.*
- *Community input.*
- *Development of commission to oversee project.*
- *Use of props to engage the public during workshops.*
- *Public awareness programs.*
- *Surveys*

Figure 6.2 Interagency Collaboration

The diverse collection of government agencies within the County need to pool their resources together in order to compete on the state level with the larger regions

Collaboration

Necessity for Collaboration

Collaboration is an issue that must be present in any regional planning effort. In order to achieve sustainable growth at the County level it is important to focus on long-term planning. This type of planning takes into account projected future growth and resource availability. References to "collaboration" and "cooperation" can be found in the County's amendments to the General Plan, SLOCOG's Community 2050 Plan, the Smart Growth Principles. Collaboration and cooperation have been addressed by multiple representatives throughout the County. Strategic Growth requires multiple jurisdictions to agree to collaborate on sustainable plans. Regional cooperation can also be used to gain state, federal, and private funding.

Interagency collaboration

Interagency Collaboration plays an integral role in the success of strategic growth implementation. The State of California continues to advocate regional planning via bills such as AB 32 and SB 375, which focus on regional issues and solutions. State funding criteria often stipulate that local governments must implement costly mandates to qualify for grants.

The October 14, 2008, Collaborative Workshop regarding Strategic Growth Readiness held at Grace Church in downtown San Luis Obispo brought together representatives from all the political jurisdictions and public agency officials within the County. This became a venue where a discussion of this frustration occurred

For example, one concern repeatedly expressed was that state mandates contradict each other and/or were too expensive to implement. Unfortunately, the passage of Propositions 13 and 218, coupled with the State's current budget shortfall has compounded the problem of an already shrinking pool of discretionary funds for local governments to tap into.

Examples of interagency collaboration include the Integrated Regional Water Management (IRWM) Program which promotes and integrated and sustainable use of water, and the Metropolitan Planning Organizations (MPO) which disperse transportation funds for metropolitan areas. California has also advocated the value of regional planning through the Region Housing Needs Allocation (RHNA) process which requires Council of Governments (COGs) to disperse the affordable housing requirements throughout the region.

The diverse collection of government agencies within the County need to pool their resources together in order to compete on the state level with the larger regions such as the Sacramento Area Council of Governments (SACOG) and (San Diego Association of Governments (SANDAG) for state funds. As state funds continue to dwindle, the competition to secure available funds will become more competitive. Obtaining as many funds as possible from the state and federal government will be necessary for the County to have a realistic opportunity to work collaboratively as a cohesive unit in order to achieve a greater level of sustainability.

In conjunction with public awareness, regional collaboration within the local municipalities can strengthen the community values and goals. A multi-municipal strategy will provide a strong regional collaborative effort and bring local municipals together to form an effective implementation strategy. Several case studies have identified how the City of Austin, Texas, City of Boca Raton, Florida, The Woodlands in Montgomery County, Texas and City of Modesto, California all have collaborated with their County through incentive programs and tax incentive funds to encourage good land use practices.

Partnerships

Figure 6.3 Public/Private Partnerships

Successful projects in these areas were driven by private-public partnerships to meet both the city's and the developer's needs. City of Chesterton, Indiana, the City has encouraged collaboration with citizens and stakeholder participation to develop a master plan. This was achieved by promoting development of local associations and allowing residents and business owners to take an active part in the development decisions.

The aforementioned case studies exhibited one or more of the following attributes. Please see Appendix I for in depth analysis of the case studies:

- *Financial incentive programs for developers.*
- *Public bonds coupled with tax increment financing.*
- *Specific plans.*
- *Regional Participation Agreements (RPAs).*
- *Tax sharing between jurisdictions.*

Public/Private Collaboration
Public-private collaboration plays another integral role in the success of strategic growth implementation. Jerry Bunin of the Home Builders Association believes that government and developers should work together to determine funding for future staffing and maintenance needs that are not covered under development impact fees. Otherwise, new homeowners will continue to pay a disproportionate amount of fees for land use improvements.

Collaboration with Nonprofits
Finally, collaboration with nonprofit organizations is another important part of the implementation strategy. For example, the Central Coast Agricultural (CCA) network provides local farmers with funding to keep the farms financially viable. This reduces the pressure on farmers to develop their land with non-agricultural uses.

In addition, there is also the Economic Vitality Corporation based in San Luis Obispo. According to their website at http://www.sloevc.org, this organization provides "economic development services and business resources… [and] stimulates the local economy by helping to generate jobs, increase investment in the community and promote the start-up, growth and attraction of businesses." This type of business development assistance can help to increase the jobs/population ratio in local communities which makes them more self-sustaining.

Phasing

Phasing is effective when paired with interagency collaboration and dialogue with the public. The Vision projects how development could occur in the County through 2025. Chapter 3 has already provided the methodology to locate and prioritizes suitable sites for strategic growth. The principles of strategic growth are used throughout the phasing process. The emphasis of the phasing process links land use with transportation. Strategic growth development should focus on moving development from rural to urban areas to take advantage of existing infrastructure.

To prioritize development, the following three basic categories of development have been established:

Infill: Development which is within the boundaries of existing incorporated cities or communities as described in chapter 4 by the Corridor Infill Development Design and/or the Downtown Development and Transit Center Design in chapter 4.

Urban Fringe: Development which is adjacent to the boundaries of existing incorporated cities or communities as described in chapter 4 by the Corridor Infill Development Design and/or the Community Expansion Development Design.

Phasing

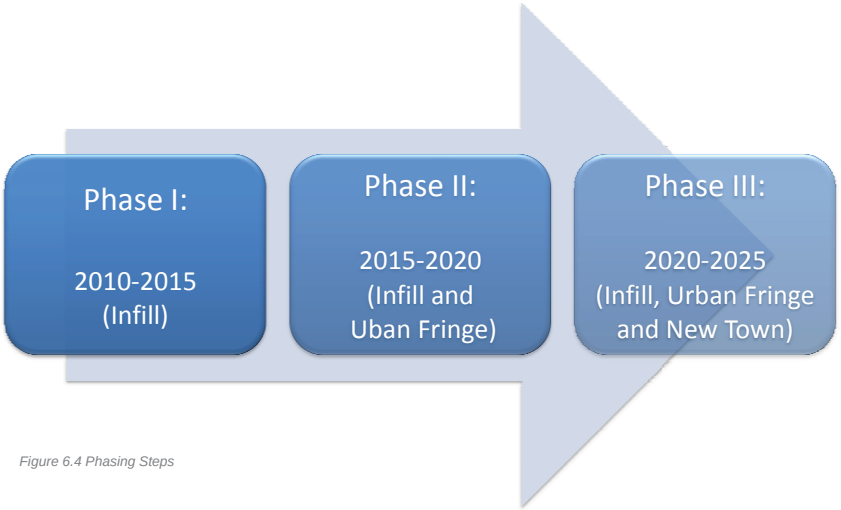


Figure 6.4 Phasing Steps

The phasing process is sequential. One phase builds upon and compliments the previous phase.

New Town: Development which does not fit the specific category of "Infill" or "Urban Fringe" as described in chapter 4 by the Downtown Development and Transit Center. New Town development should be within 2.5 miles of the major transportation corridor (Highways 101 and Highway 46).

Figure 6.4 illustrates the phasing process.One phase builds upon and compliments the previous phase. In order to promote strategic growth we recommend the following:

1. *Establishment of Transit Oriented Development district boundaries.*
2. *Station Area Plans (SAPs).*
3. *Public-private partnerships.*
4. *Pooling of financial and staff resources.*

Phase I: 2010 – 2015 (Infill)
Phase I concentrates on developing projects within existing cities and communities to take advantage of existing infrastructure. Development during Phase I should focus on providing a variety of compact housing choices. As noted later in this chapter compact development relies on resources less than traditional development. Education workshops for stakeholders and the implementation of programs or regulatory policies which reduce automobile dependence should be implemented at this time.

Examples of these programs include government agencies implementing car share programs for employees or securing funds through grants and/or taxes to make public transit a desirable option to the automobile. One other concept which would help increase public transit is to integrate existing agencies such as the City of San Luis Obispo Transit with the Regional Transit Authority. Agency integration should lead to a more efficient organization which could pool resources together to offer a more attractive service. The goal is to stir growth to areas which posses existing infrastructure and to reduce the effects of traffic congestion through the increase of public transit ridership.

Phase II: 2015 – 2020 (Infill & Urban Fringe)
Phase II seeks to build upon the accomplishments of Phase I. The goal is that as existing cities are approaching build out, development begins to spring up on the fringe to accommodate population growth. Development should continue to rely on resources less than traditional development while utilizing public transportation to link the fringe with the existing core of the city. As Phase II begins, the goal is that quasi public-private relationships will develop alternative modes of transportation. One concept is to reduce the overall parking requirements for future development with the premise that some of the parking spaces will be designated as car share spaces for private firms or public agencies.

Phase III: 2020 – 2025
(Infill, Urban Fringe, & New Town)
Phase III seeks to continue to build upon the accomplishments of Phase I and II. At this time, population growth may outpace the capacity available in the existing cities and communities along the urban fringe. If this is the case, a new town should be established. The new town should be a complete community. This would be an enormous undertaking. Existing cities and communities may have to pool their resources together for the initial development of infrastructure required for a new town.

This would also require large infrastructure projects such as highway expansions or bus only lanes will be required to handle the needs of the projected population. The creation of High Occupancy Vehicles (HOV) and bus only lanes should be considered to alleviate congestion and enhance the attractiveness of public transit. For the City of Austin, Texas and The Village

at Shirlington in Arlington, Virginia, phasing strategies were effective in decreasing sprawl and implementing smart growth principles. Initial phasing of the project started with the implementation of the boundaries within district with zoning classifications then phased into developing and implanting design standards.

The aforementioned case studies exhibited one or more of the following attributes (please see the Appendices for in depth analysis of the case studies)

- Establishment of TOD district boundaries.
- Station Area Plans (SAPs).
- Public-private partnerships.
- Pooling of financial and staff resources.

Cost Comparisons Traditional vs. Strategic

With all development there are costs to government for providing public infrastructure and services such as roads, water, sewage and garbage collection. Studies of these costs consistently show them to be higher when the development pattern is dispersed and less costly with more compact development and within existing urban footprints as advocated by Smart Growth principals.

These studies also show that the standard development charges, fees and taxes often fail to accurately reflect these differences. Although most studies are driven by their local context, in general it is found that compact growth savings can range from $5,000 to as much as $75,000 per unit, compared with the same quality of infrastructure provided to dispersed land use pattern (Littman, 2004) The cost to local government of providing public services for different land uses is summarized by Todd Littman (2004, p.6) in the following bullet points and in figure 6.5.

- Costs are low in rural areas where households provide their own services.

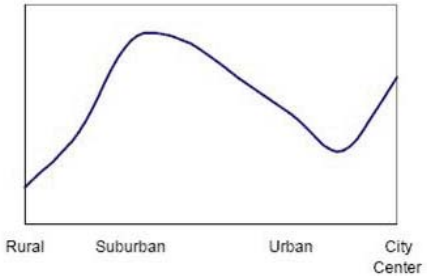


Figure 6.5 use Imapcts on Public Infrastructure and Services

- Costs increase in suburban areas where services are provided to dispersed development

- Costs decline with clustering, and as densities increase from low to moderate.

- Costs are lowest for infill redevelopment in areas with adequate infrastructure capacity.

- Costs tend to increase at very high densities due to congestion and high land costs.

A recent Brookings Institute Report (Muro and Puentes, 2004) analyzed the body of research on the topic of Smart Growth and cost to local government and concluded that over the next 25 years nationwide local governments could save: 11.8 percent, or $110 billion, on road building costs, 6 percent, or $12.6 billion on sewer costs, and 3.7 percent, or $4 billion, for operations and delivery of services if all new buildings were constructed following Smart Growth principals.

Overall, development should seek to avoid the following common characteristics of traditional growth:

Rural Development.
Large Lot Development.
High Water Use.
Energy Intensive Devleopment.
Auto-centric. Devevelopment.

Future growth should promote the following:

Decrease in water per capita.
Decrease in energy.
Decrease in vehicle miles traveled.
Provide for complete communities.
Range of housing choices.
Economic development.

Figure 6.6 Collaboration

EXAMPLE OF IMPACT FEES REFLECTING "TRUE COSTS"

In 1993, the city of Lancaster, CA in Los Angeles County, developed a model for assessing impact fees on new development beyond the defined central core by imposing a surcharge. The further out from the central core, the higher the fee exacted.

An example cited indicates that an impact fee of $5,500 for a home within the defined city core would be accessed $10,800 one mile beyond the core. The stated goal of the system is to more closely match development fees with their public costs. The result is sprawl development becomes less attractive to developers.

Since the model was implemented in 1993, no new development has occurred outside the central core (New Rules, Lancaster, California Distance-Based Impact Fees 2002, as cited in Littman, 2004). This approach to fees could be applied to San Luis Obispo County as part of implementation strategy of Strategic Growth.

STRATEGIC GROWTH & REDUCED MAINTENANCE COSTS FOR COMMUNITIES, HOME OWNERS, AND DEVELOPERS.

The Northeastern Illinois Planning Commission and Chicago Wilderness Conservation created a document called the Design Resource Manual: Language and Guidelines for Updating Local Ordinances (Manual), in 2003. This Manual provides a comprehensive report on how strategic growth can reduce maintenance costs form communities, home owners and developers. Excerpts of these benefits from the Manual can be found in Appendix C.

Strategic Growth Mechanisms

The following section is divided into two primary categories: Regulatory and Funding. Creative and adaptive regulatory and funding mechanisms will play an integral role in future development. As the volatile economy continues to fluctuate, County stakeholders will need to create collaborative partnerships through regulatory and funding mechanisms to fill ever increasing funding gaps. The section is meant to only highlight potential uses of the prescribed mechanisms.

Regulatory

Regulatory mechanisms are an opportunity for the County to utilize policy to direct growth into the areas which support sustainability.

1. Reduce Annual Growth Cap

Currently the Growth Management Ordinance (GMO) caps annual growth to 2.3%. Within the past 15 years (Caruso, 2008), the GMO has only been reached one time. The County may want to reduce the annual GMO growth rate, which will help direct growth into the cities.

The GMO growth rate could be reduced based on staff's recommendation of a LOS III for the ground water supply. Reducing growth in areas where ground water is being depleted at a greater rate than the basin can sustain is a key step in the County becoming sustainable.

2. Amend the Agricultural Zone

The current Agricultural Zone allows uses which are not agricultural in nature such as small scale manufacturing, libraries, museums, religious facilities, health resorts, residential care facilities, single-family dwellings, and restaurants. These uses lead to urban sprawl and the need to install expensive infrastructure and require public services, such as law enforcement to be stressed. The County may want to consider amending the Agricultural Zone to allow only agriculture related uses and not agricultural commercial uses.

3. Tax Sharing Agreement with LAFCO

LAFCO should work on creating tax sharing agreements that benefit cities when annexing properties. This type of agreement could help

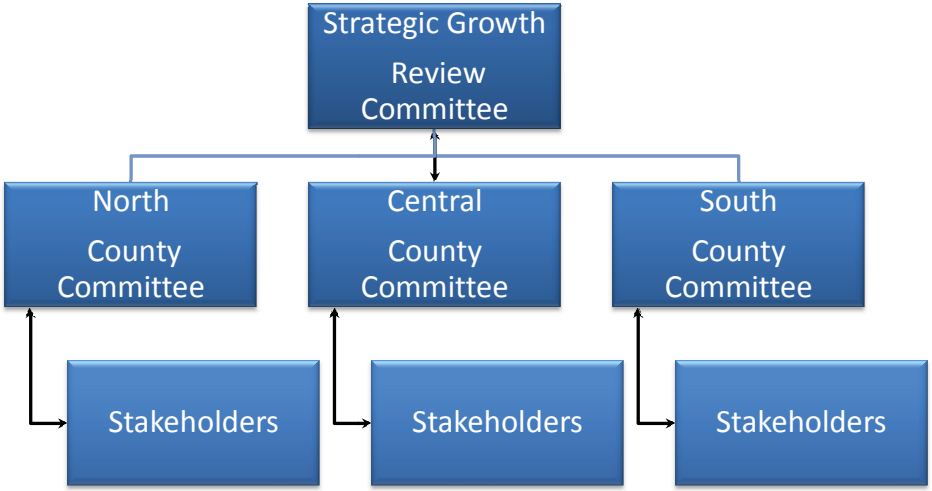


Figure 6.7 Strategic Growth Review Committee

A Strategic Growth Review Committee (SGR) should be formed to review the implementation process.

to decrease the prevalence of sales tax canyons filled with big box stores and associated inter-governmental tax wars.

Funding

During our current economic climate, funding mechanisms will be the most difficult to obtain but may be the most rewarding. One possible funding mechanism which could be established during Phase I is a Pilot Smart Growth Incentive Program (PSGIP).

In 2005, SANDAG established a PSGIP which awarded over $19 million in funding for 14 projects. In addition to the one time fund of $19 million, the region has instituted a TransNet half-cent sales tax program to raise additional funds to encourage future projects which are in concert with the objectives set forth in their region's vision of strategic growth (SANDAG, 2005). The government entity considering implementing similar taxes need to be cognizant of the potential ramifications due to proposition 218.

Another series of funding options may involve cooperation between the County and incorporated cities. The County along with one or more cities could go into a contract that stipulates that the County would float bonds for the infrastructure required for land recently annexed by the city.

The agreement would stipulate that any development must be in concert with the County's vision of strategic growth and that all tax revenues generated by the proposed development will go to the County until the aforementioned bonds are paid in full.
Finally, the County and local jurisdictions may want to consider a fiscal impact analysis of all new development which shows the cost of ongoing public service maintenance and staffing, as well as funding sources.

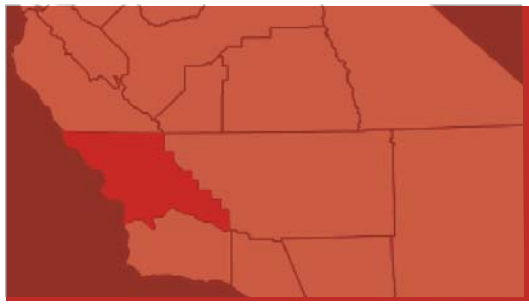
Strategic Growth Review Committee (SGR)

The SGR should be a countywide committee that meets to look at the County as a whole. Futhermore, sub regional subcommittees should be established. The sub regional committees could be divided into sub regions in order to ensure that the myriad communities within the County have a voice. Perhaps dividing the County into north, central, and south sections will be sufficient. The SGR subcommittees could meet once a month and report their findings to the SGR every six months. The following chart illustrates the structure of the strategic growth review committee.

Based on analysis from the SGR subcommittees, the SGR would adjust policies and plans as necessary to accentuate strengths and negate weaknesses of the County's strategic growth plan. The initial acts of the SGR and the corresponding subcommittees should be to establish a clear and concise framework which identifies the indicators which will be used to measure the success of the County's strategic growth plan.

The key to the strategic growth plan's flexibility is having an SGR which can adjust the plan to ensure that the County achieves greater levels of sustainability. The SGR would benefit from involving SLOCOG members in future activities due to the agency's role in regional planning. The primary purpose of the SRG is to align the myriad stakeholders' vision of strategic growth while allowing the plan to evolve as necessary to promote strategic growth.

Due to the responsibility and power inherent in the task before them, the SGR should be committed to a level of integrity and transparency which imbues County stakeholders with the sense of trust necessary to garner their support.



APPENDIX

Apendicies

Appendix A 119
General Plan Amendment LRP2005-00013
Proposed Modifications to the Framework for Planning (Inland)

Appendix B 121
In Depth Discussion of Five Issue Areas

Appendix C 125
Analysis of Existing Documentation

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GENERAL PLAN AMENDMENT LRP2005-00013 PROPOSED MODIFICATIONS TO THE FRAMEWORK FOR PLANNING (INLAND)

Based on research of County data, it is recommended that strategic growth for the County should strive to reduce dependency on automobiles; provide more renewable management of water and energy; and discover multiple financing sources and techniques in order to accomplish this. First the County should make the public aware of the importance of sustainability. In accordance with public education, the County must continue to refine its strategic growth goals and provide more detailed strategies for their implementation.

The County is faced with making a choice of where it should accommodate growth or not. Based on the review of existing documentation for the County, growth should be concentrated in the existing communities of Shandon, Atascadero, Paso Robles, San Miguel, and San Luis Obispo. The growth should also concentrate along existing highway corridors to take advantage of established infrastructure, continue to preserve water and environmental resources, proved economic strength and while avoiding hazardous areas.

Recommended Changes to Amendments to Framework for Planning
The County's proposed amendments to the General Plan address the County's strategic growth vision. The ten principles of the Amendments to Framework for Planning (Framework) are based on the Smart Growth principles. However, the framework principals are further refined through goals and implementing strategies which specifically speak to the County's application of the principles. Only the Inland Section of the Framework was reviewed although there is also a Coastal Section. The Framework has following strategic growth goals:

- Using land, energy, transportation, infrastructure and water resources efficiently.
- Building more compact, walkable communities with adequate infrastructure and resources.
- Planning neighborhoods near schools, recreation, jobs and shopping.

The review of the Framework reveals that the verbiage of these goals and implementing strategies need to be revised for clarity and conciseness. During the review process the verbiage was simplified and refined. Some goals were moved if they fit more appropriately within another area or if they were duplicated. Please contact James Lopes, Long Range County Planning Division at (805) 781-5975 for more information.

INDEPTH DISCUSSION OF FIVE ISSUE AREAS

Five issue areas have been chosen as key components for the County to focus on while sustainably planning for the future.

1. Land Use/Transportation
2. Water
3. Energy
4. Financial Solutions
5. Public Awareness

Land Use/Transportation

Due to the fact that the County is a predominantly rural area, a major problem is people's current dependency on the automobile, which has arisen because of an imbalance of land uses and transportation options. Consequently, land use and transportation are two major interconnected areas that need to be addressed. In regards to land use, individual communities need to have a better balance of residential, commercial, and recreational uses. This creates more complete communities, which reduce residents' need to travel between communities, and encourage walking and cycling within communities. Transportation between communities needs to become less dependent on the automobile, which can occur if a focus is placed on improving transportation options, such as the bus system.
Case studies such as The Crossings in Mountain View, California, Village Homes in Davis, California, Prairie Crossing in Grayslake, Illinois, Crawford Square in Pittsburgh, Pennsylvania provide a variety of transportation choices that offer alternatives to driving in an effort to achieve a more comprehensive community. Transportation programs in Lancaster County, Pennsylvania, and Marin County, California are developed by the cities as an incentive to obtain and use efficient transportation systems in order to improve quality of life and feasible access to resources.

Water

Growth within the County is expected and necessary to further economic development. A key issue to be address is the availability of potable water. Planning in areas without a viable and long-lasting water supply cannot be considered sustainable. The County needs to better conserve and manage its current water resources, understanding that everyday actions have an effect on overall water supply. In addition, the County should seek more renewable sources of water for future growth.
Case studies such as Village Homes in Davis, California and Civano in Tucson, Arizona achieve water resource management to maintain the condition of water resources to meet present and future needs. Water Resource and Conservation Plan in Phoenix, Arizona, Sonoma County, California, and Lancaster County, Pennsylvania is developed by the city to reduce the water crisis situation and strive to achieve water use efficiency to protect and restore water by developing strategies for sustainable and efficient water use. The following case studies can be found in the Appendices

Energy

Energy efficiency also plays an important role in the County's aim at sustainability. Supplying County residents with energy from local sources is the first step towards becoming energy independent. Advances in renewable energy technology, the rise of conventional electricity prices, and increasing affects on the environment provide reason for homeowners, businesses, and government entities to invest in alternative power and become more energy independent. The County has multiple opportunities for renewable energy sources including, wind, solar, tidal, and geothermal. These sources are readily available, inexhaustible, and their production has a decreased adverse affect on the environment. Cleaner energy processes reduce pollution, leaving a healthier environment for future generations.

Case Studies such as Civano in Tucson, Arizona, The Farm in Soquel, California, Normandie Village in Hollywood, California and more reduce the energy consumption by the use of conservation and high efficiency technology that is capable of saving money in the long run. Climate Action plans in Seattle, Washington, Berkeley, California, and Santa Cruz, California is developed by the cities to reduce the amount of power used, decrease the need to produce as much energy, and improve the chances of meeting future needs. More case studies pertaining to energy efficiency can be referenced in the Appendices.

Financial Solutions

Due to way government is currently financed, and based on recent economic difficulties, local jurisdictions must find new methods to fund not only new infrastructure but ways to maintain existing structure and pay for existing and new staff. This challenge requires collaboration by governmental jurisdictions, private entities, non-profit organizations and other stakeholders to provided creative financing for needed services, environmental protection programs, economic development opportunities, and other needed resources to create a sustainable county.
In order to begin implementing Strategic growth projects, the County must identify ways of financing these efforts. Cities and communities should work within their jurisdictions to gather funds to support developments that focus on the sustainability of the region. In addition to generating funds from within the County, outside sources such as State and Federal grants should be applied for. Public and private investors within the County should utilize other sources, such as 'green grants' from private foundations.

Case studies such as Lancaster County, Pennsylvania, Montgomery County, Maryland and more developed countywide strategic growth principles that require the county to employ growth management ideas. Funding programs and government incentive programs are developed within the jurisdiction to provide grants for local municipalities to update local plans and ordinance. More case studies pertaining to Growth Management can be referenced in the Appendices.
Public Awareness

Finally, the public must become aware of how critical sustainability is to their current and future well-being. The County's first step must be to educate the public about the planning vision. Gaining residents' support of sustainable Strategic growth projects should be a top priority. To help gain support for implementing and financing future Strategic growth plans the public needs to understand and favor of this type of growth.

Case studies such as Addison Circle in Texas, Crawford Square in Pittsburgh, Pennsylvania, Uptown District in San Diego, California, Central District Specific Plan of Pasadena, California, and Baldwin Park in Orlando, Florida, approached by holding visionary workshops to obtain input from the public. The city of Berkeley, California builds on its existing programs to engage the citizens and businesses in achieving a community wide goal. For plans such as the Water Resource Element and Transportation Element of Lancaster County, Marin County, Phoenix, Arizona and Pasadena, California first approached the development of the plans through public awareness and inputs, then generated the plan by incorporating a separate education goal to implement the plan effectively. More case studies pertaining to public education can be referenced in the appendices.

Additional Areas of Focus

In addition to these five issues, the future decisions will include a focus on agriculture protection, affordable housing, job opportunities, wildlife protection, open space preservation, recreation, and other resources relied upon by the community. Further, the County will also need to consider the increased demand for new development and the competing land use interests between public and private issues surrounding community growth. An overview of the issues address in future sections of this document and the Appendix include:

- Transportation -Transportation Choices, Transit Oriented Development
- Water - Conservation and Re-use
- Energy - Alternative Energy Sources, Climate Action
- Financing
- Housing - Neighborhood Development, Affordable Housing
- Infill - Mixed Use, Creating Strong Sense of Place
- Agriculture - Environmental Protection
- Growth Management
- City - County Collaboration
- Community Outreach

ANALYSIS OF EXISTING DOCUMENTATION

The process of due diligence is long and necessary and involves a review of existing documentation. This document review is in two sections.

Section I integrates reviews existing documentation regarding the four issue areas selected as key components for the County to focus on while sustainably planning for the future. Section I covers the following topics.

- Transportation/Land Use.
- Water Resources.
- Energy.
- Economic Development.

Section II investigates other pertinent topics regarding County-wide strategic growth and covers the following topics:

- Housing and Education.
- Environmental Resources.
- Environmental Hazards Department of Defense.
- Personal Communication.

These topics provide the framework and justification for strategic growth in specific areas of the County.

SECTION I: EXISTING DOCUMENT SUMMARIES

TRANSPORTATION AND LAND USE DOCUMENT REVIEW
SLOCOG TRAVEL DEMAND MODEL

In 2003, SLOCOG commissioned the development of a traffic model for use in creating the County's Long-Range Regional Transportation Plan 2015 and 2030. The goal of long-range transportation planning studies, such as travel demand models, is to ensure that the future County transportation system will be adequate to accommodate future demand. Further, a model can help to prioritize infrastructure improvements by a quantitative examination of system needs.
The traffic model for Regional Transportation Plan 2015 uses present day road network, known as "Base Year." The Regional Transportation Plan 2030 traffic model incorporates a number of changes in the roadway network from the Base Year model as follows:

- Highway 101 is widened from two lanes per direction to three lanes per direction from Santa Maria to Madonna Road (San Luis Obispo City)

- State Route 46 East is widened from one lane per direction to two lanes per direction from Airport Road (the current eastern end of the four-lane section) eastward to the junction with State Route 41. (Shandon)

- Willow Road Interchange, Southland Street Interchange, Prado Road Extension and Interchange improvements were added to the Highway 101 corridor.

- Airport Road Extension in Paso Robles.

The traffic volumes to capacity ratio show that congestion is most significant from the Five Cities Area to Santa Maria in Santa Barbara County beginning in 2015 and showing significant traffic congestion in the 2030. More moderate congestion appears in the Paso Robles area in 2015 extending to Atascadero, the Cuesta Grade and parts of the County by 2030.

The SLOCOG Traffic Demand Model (TDM) encompasses all of San Luis Obispo County as well as a small portion of Santa Barbara County around Santa Maria. It incorporates part of Santa Barbara County because of the high level of commuting that occurs between the Nipomo area and Northern Santa Barbara County. The inputs to TDM project roughly 40% out commuting from Nipomo to Santa Barbara compared only 3% North County Traffic being inter-county. The model divides the County into seven "screenlines." North Edge, North Central, West Central, Cuesta Grade, East, South Central, South Edge and shows significant growth in all over the County with the exception of the West Central screen where communities such as Morro Bay are unlikely to grow as the rest of the County.

Capacity Congestion Map San Luis Obispo County 2015

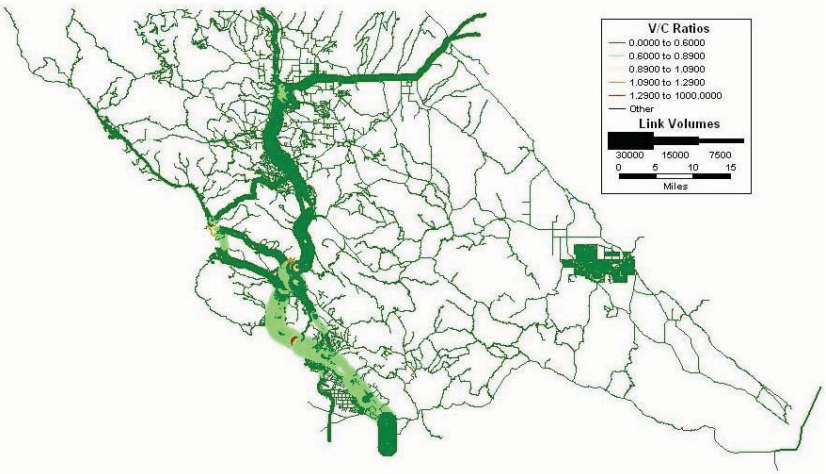


Figure B.1 2015 SLOCOG Traffic Model

Volume/Capacity Congestion Map SLO County 2030

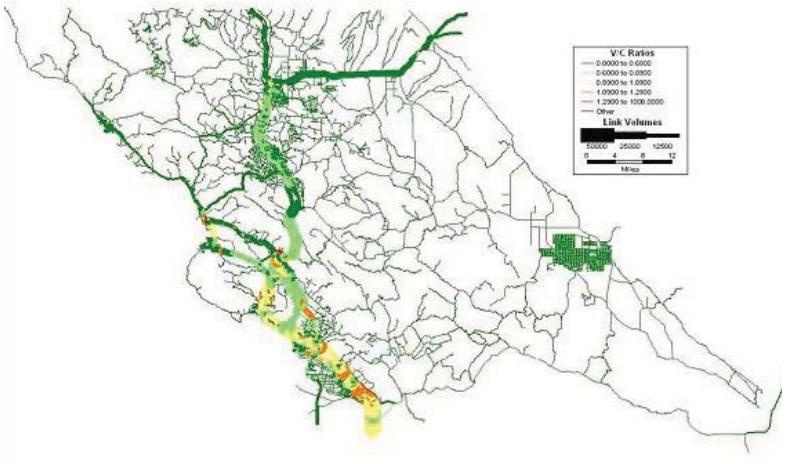


Figure B.2 2030 SLOCOG Traffic Model

Interestingly, in addition to the growth in the South Edge around the Five Cities and Nipomo areas and the North Edge, North Central and Cuesta Grade around (Atascadero and San Luis Obispo City) the East is projected to grow significantly.

SLO County Screen Lines

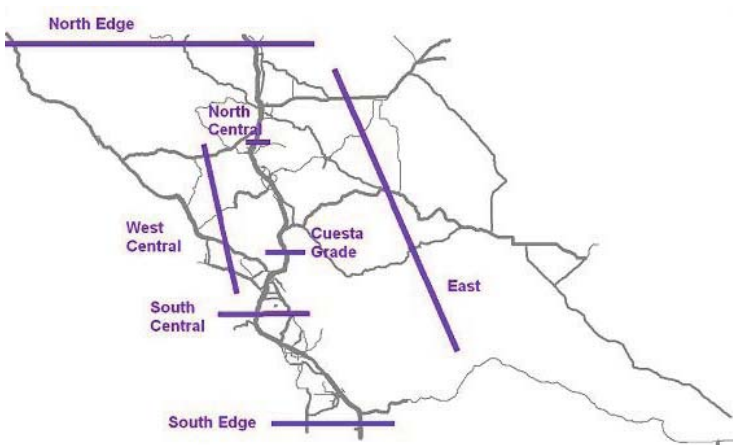


Figure B.3 County Screen Lines

2007 Annual Recources Summary

	Base Year (2004)	2015	Increase over Existing	2030	Increase over Existing
North Edge	29,311	37,334	27%	57016	95%
East	13,913	19,455	40%	28991	108%
North Central	48,759	53,572	10%	67416	38%
West Central	53,468	53,835	1%	67385	26%
South Central	83,883	100,659	20%	140663	68%
Cuesta Grade	41,112	56,492	37%	82002	99%
South Edge	68,853	87,750	27%	128530	87%

Figure B.4 Annual Resources Summary

As mentioned previously this model is projecting the future based on the past growth pattern of low-density single family homes, more often in the unincorporated part of the County and in an auto-dependant pattern.

SLOCOGS' Travel Demand Model (TDM) differs from the long range visioning such as the Community 2050 Plan project because it projects future growth based on the past rather than attempt to guide land use decisions controlled by local and County government. All traffic models require inputs. Typically traffic model inputs are based on future forecasted economic growth and land uses. The inputs to the TDM therefore assume likely growth patterns and past modes of transportation. Inputs for the TDM were evaluated by an independent study prepared by Economic Research Associates (ERA) Long Range Socio-Economic Projections (Year 2030). The ERA prepared three scenarios for growth in San Luis Obispo County and Santa Maria. The scenarios were based on current land-uses patterns and future County growth. The TDM used the middle forecast of the three ERA scenarios. This middle scenario assumes future growth of mostly single family homes, mostly occurring in unincorporated areas of the County, and with most new trips made by a single occupancy vehicle (SOV).

Some alternative modes of transportation, like public transit, pedestrian and bicycle mobility may be modeled along with auto trips if they are significant. In the case of San Luis Obispo County, alternative modes of transportation were not included because they make up less than 1% of total daily trips (2000 Census). Though the TDM does not account for auto alternatives, some standard adjustments will be made to test different growth scenarios. These adjustments will assume land-use changes can affect the percentage of people using different modes of travel to complete a trip, known as "mode splits," and number of trips made by individuals. Further, this process will be synchronized, to some extent, with SLOCOG's Community 2050 Plan process where different development futures are being envisioned for the County.

SLOCOG COMMUNITY 2050 PLAN: LAND USE AND TRANSPORTATION

The goal of the SLOCOG Community 2050 Blueprint (2050 Blue Print) (SLOCOG, 2008) is to consider transportation and housing needs and to integrate transportation and land use in a long range vision that differs from the current sprawl patterns of development. This effort imagines "smarter" more compact growth along transit corridors in all cities and communities of the County as an alternative future. The ultimate goal is to inform local decision-makers, to facilitate interagency communication and too potentially get in front of new State regulations (AB32 and SB375) which are taking shape. The 2050 Blue Print, like our project, sustainably concentrates compact growth into existing cities and communities and along transportation corridors and activity nodes. The 2050 Blue Print proposes a strategic scenario for all 'urbanized' areas designated in the general plan land use categories (excludes agriculture, rural lands, recreation, and public lands). Urbanized areas are designated as follows:

- Urban Centers – San Luis Obispo, Paso Robles, Santa Maria.
- Cities – Arroyo Grande, Atascadero, Grover Beach, Guadalupe, Morro Bay, Pismo Beach.
- Towns - Avila, Cambria, Cayucos, Los Osos, Nipomo, Oceano, San Miguel, Santa Margarita, Shandon, Templeton, San Simeon.

- Villages - Creston, Heritage Ranch, Los Berros, Oak Shores, Palo Mesa, San Simeon.
  Context on Auto Dependency in San Luis Obispo County

The Victoria Transportation Policy Institute (VTPI) has defined Auto Dependency as: "… the cumulative effect of transportation and land use patterns that result in high levels of automobile use and limited transportations alternatives."

VTPI, is a well respected policy think tank in the transportation field that advocates Smart Growth. It defines the opposite of auto dependency to be a balanced or multi-modal transport system. One issue with spatially dispersed auto dependant environments is they are difficult to serve with acceptable public transit service perpetuating the cycle and discouraging other modes. They also cause, promote, and perpetuate the following:

- Excessive energy consumption
- Congestion with increased vehicle miles traveled (VMT)
- Air pollution with green house gas emissions

FUEL CONSUMPTION, VMT AND POLLUTION

Energy Information Administration has projected the 2008 consumption of oil as 19.8 million barrels per day (down 830,000 barrels per day from the 2007 average), yet domestic production is only 5-6 million barrels per day. Transportation's share of petroleum use in the US is roughly 75%. This is clearly not a sustainable situation.

Automobile emission reduction efforts have greatly reduced the pollution of automobiles but these gains are offset by the ever increasing number of miles traveled by Americans. Per capita transportation energy consumption and pollution emissions tend to decline with increased land use density and accessibility that reduces per capita vehicle travel. "Between 1970 and 1995, total annual VMT in California more than doubled, increasing from 103 billion to over 270 billion miles of travel per year (although the growth rate in VMT tapered off somewhat between 1990 and 1995). Between 1970 and 1995, the state's population grew by 60 percent, increasing from 20 to 32 million people." (Parker, 1997, p.1)

METROPOLITAN PLANNING ORGANIZATIONS

Metropolitan Planning Organizations (MPOs) are policy-making organizations that allocate state and federal funds for local transportation projects. Typically they are made up of representatives from local government as well as dedicated staff. MPOs are required by the federal government of any Urbanized Area (UZA) with a population greater than 50,000.
The Regional Transportation Plan (RTP) provides the basis for long range planning of transportation for a UZA. These are to be fiscally-constrained plans for the metropolitan area covering a planning horizon of at least 20 years. The Federal Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) gave new importance to MPOs by expanding their authority to select projects and to allocate funds to all modes rather than simply highways projects by considering issues such as congestion and air quality. Though the role MPOs has evolved and has moved away from being totally autocentric the issue remains that the inputs to transportation models used and the RTP process itself are based on the past land-uses projected into the future rather than guiding better land-use.
For example, the Metropolitan Transportation Commission (MTC) in the Bay Area undertakes some general scenario planning much like the newly implemented California Department of Planning Blueprint Process to "inform" local government but similarly has little leverage to push desired land uses. The decisions on land use remain a local function. The MTC's own official modeling, much like that of SLOCOG, shows their respective regions to be worse off with regard to congestion and air pollution in 20 years with their official Regional Transportation Plan.

SPUR (SAN FRANCISCO PLANNING URBAN RESEARCH ASSOCIATION): LAND USE CHANGES SPUR (San Francisco Planning Urban Research Association)

has a vision for the Bay Area process where different options are officially modeled to show the different "futures" between an autocentric "business as usual" model and one where investments are made into public transit and land-uses clustered. A group of Bay Area planners and environmentalists working under the umbrella of the Regional Alliance for Transit (RAFT) created just such a plan for the 1994 Bay Area Regional Transportation Plan. Using the same 2010, population projections and the same funding total, they modeled growth clustered around transit with most of the funds directed to support public transit and with supportive policies (e.g. parking cash out, group passes) showing a future with lower VMT and air pollution and higher transit ridership. According to SPUR, though the Metropolitan Transportation Commission in the Bay Area is correct in that it has no authority to carry out a plan like the RAFT alternative, they do control the purse strings to establish incentives for transit-supportive land use. (SPUR, 1999).

Slowly but surely it appears the Metropolitan Transportation Commission (MTC) is moving in this direction. In 2005, the MTC approved Resolution 3434 relating to linking transit projects to land-use. Cities along the transit corridor must re-zone for housing around new stations to receive the funding allocations. (MTC Resolution 3434) According to the Sierra Club the policy is a step in the right

direction but would accommodate just 11% of the region's projected population growth in the next 25 years. The MTC projects 50% of the region's growth to be more than half a mile from transit (Sierra Club, 2005).

The most recent Regional Transportation Plan (RTP) 2035 will be finished 2009. There is over $223 billion of transportation funding that MTC expects will become available to the Bay Area over the next 25 years. Of that money, $191 billion is called "committed," leaving $32 billion in what they call "discretionary" funding. The vast majority of this money is earmarked for maintaining current road and transit infrastructure with much of it earmarked for transit. Though this is a positive direction quite recently the Attorney General of California communicated dissatisfaction with the process of "earmarking" for projects conceived before AB 32 likely resulting in the MTC evaluating all projects for their consistency with reducing green house gas (GHG) emissions. A letter dated October 1st, 2008 from the California Attorney General's office stated the following:

"CEQA requires that an EIR evaluate the potential environmental impacts of an entire project, which in this context we believe represents the entire $223 billion of authorized expenditures – not just the $31.6 billion for projects MTC identifies as "discretionary," but also the $191 billion for projects identified as "committed," projects included in the prior Transportation Plan but not yet constructed. The EIR for the prior Transportation Plan was prepared before AB 32, with its GHG-emission reduction goals, was enacted."

The MTC is one of the of the larger MPOs in the State of California and is a leader in many respects with their large allocation of funds to transit projects as well as an modest attempt at linking land-use to transit investment. However, as the Attorney General's letter makes clear, there is a new paradigm of state regulation coming and green house gas emission reduction goals for the State must be considered under CEQA for all projects. It appears in light of this new legislation that the role of MPOs will be evolving. One clear path for this appears to be allocating funds as an incentive (i.e. reward) to communities planning land-use that is supportive of the California's goals.

WATER RESOURCE DOCUMENT REVIEW

RESOURCE MANAGEMENT 2007 ANNUAL RESOURCE SUMMARY REPORT, SAN LUIS OBISPO COUNTY

The Resource Management's (RMS) Annual Summary Report (ASR) relies upon existing information gathered from several sources such as county agencies, reports from state and regional agencies, community service districts, environmental impact reports, and additional data gathered by staff from many agencies.
The primary focus of the RMS is to provide valuable information to aide decision makers' ability to balance land development with the appropriate resources to be sustainable. The RMS is composted of the following three components: data collection, resource problem identification, and recommendations. Resources contained in the ASR range from natural sources such as water supply and air quality to service resources such as roads, schools or sewer systems. The ASR states:
"When a resource deficiency becomes apparent, three courses are possible to avoid jeopardizing public health or welfare: the resource capacity may be expanded, conservation measures may be introduced to extend the availability of unused capacity, or development may be restricted or redirected to areas with remaining resource capacity" (2007 Annual Resource Summary Report, County of San Luis Obispo).

The ASR addresses resources within San Luis Obispo County through the following table which identifies resources by service and the measures used for evaluation as described in Figure 8.4 below:

2007 Annual Resource Summary Report

Service	Measure
Water Suppy	Safe Yield/Extractions
Water Systems	% of Capacity
Sewer Systems	% of Capacity
Roads	Level of Service
Schools	Enrollment Capacity
Air Quality	State Standars

Figure B.4 Annual Resources Summary

In addition to identifying resources, the RMS utilizes three alert levels called levels of severity (LOS) to identify differing levels of resource deficiencies. The following is the definitions provided within the ASR for the three LOS used to evaluate resources:

"Level I is the first alert level. Level I occurs when sufficient lead time exists either to expand the capacity of the redistricts source, or to decrease the rate at which the resource is being depleted. Level II identifies the crucial point at which some moderation of the rate of resource use must occur to prevent exceeding the resource capacity. Finally, Level III occurs when the demand for the resource equals or exceeds its supply" (2007 Annual Resource Summary Report, County of San Luis Obispo). LOS III for any resource is detrimental to the overall quality of life to residents and is not sustainable. Mitigating actions should be conducted to prevent resources from reaching LOS III. Unfortunately, the ASR highlights several regions of the County which have one or more of the aforementioned resources certified by the County Board of Supervisors as already being at LOS III. County Board of Supervisors certification calls for a resource capacity study (RCS) and requires mitigating action. Many other areas have resources which County staff is recommending a LOS III. Staff recommendations qualify as an acknowledgement that the resource is declining. County Board of Supervisors certification and the corresponding RCS are necessary to require mitigating action.

INTEGRATED REGIONAL WATER MANAGEMENT (IRWM) PLAN

The State of California continues to encourage regional planning by rewarding grant money for those regions which establish agencies to work together to solve regional issues. Funding for the IRWM Plan was secured in November of 2002, when California voters passed Proposition 50. For regions such as the San Luis Obispo County to be eligible for water resources planning and project grant funding, they must have collaboration between water agencies. The IRWM Plan website states that "water agencies were asked to form a region when their jurisdictional boundaries overlap the same or connected watersheds, and involve appropriate stakeholders to integrate water supply, water quality, ecosystem, and flood control issues into their water resources planning and projects." (IRWM, 2002) Regions were prevented from applying for funding until they had developed and implemented an IRWM Plan.

The San Luis Obispo County Flood Control and Water Conservation District (District), in cooperation with the Water Resources Advisory Committee, has developed an IRWM Plan for the region defined as the County boundary. The IRWM Plan website states that "the San Luis Region's IRWM Plan integrates all of the programs, plans and projects lead by entities within the region into water supply, water quality, ecosystem preservation and restoration, groundwater monitoring and management, and flood management programs." The IRWM Plan is a clear example of the State of California advocating regional planning via the dispersion of grant funds.

ENERGY DOCUMENT ANALYSIS

ENERGY: SAN LUIS OBISPO COUNTY ENERGY ELEMENT

The San Luis Obispo County Energy Element of the General Plan was last updated in 1995. The purpose of the Element is to increase the County's energy efficiency, provide policy guidance on energy-related issues, document the County's energy resources, determine land use and environmental criteria for evaluating future projects and provide policy alternatives that exceed State energy mandates for new construction.

The Energy Element seeks to achieve fourteen fundamental goals:

I. Develop Compact Communities
II. Increase Transportation Alternatives
III. Use Telecommuting Technologies
IV. Design Energy Efficient Projects
V. Improve Energy Efficiency in County Operations
VI. Encourage Agriculturalists to Save Energy
VII. Increase Energy Awareness
VIII. Encourage Recycling and Reuse
IX. Protect Public Health, Safety and the Environment
X. Encourage Renewable Energy Projects
XI. Address Major Energy Facility Siting Issues
XII. Encourage Development of Cogeneration Facilities
XIII. Encourage Development of Distributed Facilities
XIV. Protect Environmental and Visual Resources

The San Luis Obispo County Energy Element will be combined into the Updated Conservation Element which is discussed in the Environmental Document Review Section of this Appendix.

ECONOMIC DEVELOPMENT DOCUMENT ANALYSIS

ESRI "TAPESTRY" REPORTS

ESRI "Tapestry" reports were reviewed for Atascadero, California Valley, Heritage Ranch, Nipomo, Oceano, Paso Robles, Rural Nacimiento, Rural Shandon-Carrizo, Rural San Luis Obispo, Shandon, City of San Luis Obispo, Santa Margarita, San Miguel, and Templeton. These reports provide detailed economic data for each community. In particular, the jobs to population ratio, breakdown of business types, and breakdown of employees by industry sector were especially useful for analyzing future growth in San Luis Obispo County.

SHANDON COMMUNITY PLAN UPDATE – 2005 MARKET STUDY

A Market Study (Study) for the community of Shandon (population 1,000) was prepared on behalf of the County of San Luis Obispo by the San Francisco-based consulting firm of Mundie & Associates in 2005. This Study was prepared as part of the updated Shandon Community Plan in order to "assess the potential for development of new business opportunities in Shandon" (Mundie & Associates, 2005, p. 1). One of the major findings from the Study is that Shandon would need a population of at least 6,000 to support a supermarket, although a new supermarket would have an adverse effect on the two existing small grocery stores. In addition, the study concluded that given a maximum build-out population of 15,000, most businesses would be small and locally-owned rather than national chains. Finally, the Study recommends the following: cluster commercial development; concentrate tourist serving and entertainment uses such as restaurants along a pedestrian-oriented "Main Street"; concentrate drive-by services such as gas stations and convenience stores near State Routes 41 and 46; and provide government assistance to commercial developments to help with infrastructure upgrades.

PASO ROBLES 2006 ECONOMIC STRATEGY

An Economic Strategy for the City of Paso Robles was prepared in partnership with the Paso Robles Chamber of Commerce in 2006. The principle goal of the report is "to improve livability and the quality of life in the City through economic growth. The strategies included in [the report] are fashioned to enhance the competitive position of individuals, local industry and commerce, the City, and the region as a whole, by building on and promoting community assets, addressing barriers to progress, and mobilizing public and private resources" (Economic Strategy, 2006, p. i). The report presents the following principles for competitive economic growth: vision and inclusion, human investment, industry, local focus, distinctive communities, center focus, compact development, livable communities, wired communities, poverty reduction, environmental responsibility, corporate responsibility, long-term investment, regional collaboration, and integrated approach. Combined with the aforementioned principles are four cornerstones of healthy economic growth: people, place, positioning, and partnership. Finally, the report recommends that Paso Robles focus on both the thriving vini-tourism industry as well as education and job skills for the local workforce.

RECOMMENDED COMMUNITIES FOR FUTURE GROWTH

Based on existing socio-economic data for San Luis Obispo County, growth should be concentrated in the existing communities of Atascadero, Paso Robles, San Luis Obispo, San Miguel, and Shandon. By concentrating growth in these communities, we can capitalize on their favorable jobs/housing ratios as well as San Miguel and Paso Robles' proximity to rapidly expanding Fort Hunter/Liggett. Nipomo was not included because the prospects for successfully increasing the dismal jobs/population ratio are poor, and adding more commuters to the area would only worsen conditions associated with the existing traffic congestion and rampant suburban sprawl. Furthermore, the infrastructure in Nipomo is sub-par and the area suffers from a water shortage.

ATASCADERO

Due to its prime location along the Highway 101 corridor between San Luis Obispo and Paso Robles, as well as its high jobs-to-population ratio of 0.33, Atascadero is a desirable location for growth. According to the 2004 updated General Plan, Atascadero estimates that total build out will occur when the population reaches 36,000. As of the 2000 Census, the population was only 26,411. In addition, downtown Atascadero has recently experienced some economic revitalization with the opening of the luxury Carlton Hotel, and there are many infill sites near the hotel that are available for new businesses. Obstacles to growth in Atascadero include the generally rural character of residential lots, and a sewer system that fails to provide service to many of the City's homes.

PASO ROBLES

Paso Robles provides an excellent location for County growth due to its high jobs-to-population ratio of 0.46, its prime Highway 101 corridor setting, proximity to Fort Hunter/Liggett, and extensive investment by the City in future planning. Currently, there are two important economic and revitalization plans being created for the community including the Paso Robles Town Center Master Plan and the Paso Robles Uptown Specific Plan. In addition, an Economic Strategy was prepared for the City in 2006 which emphasized the City's ability to capitalize on wine and argi-tourism. According to the 2003 updated General Plan, Paso Robles estimates that total residential build out will occur when there are 16,287 Dwelling Units, 6,940,000 square feet of commercial, and 3,591,000 of industrial development in the City. At the time of General Plan adoption, there were currently 9,694 Dwelling Units, 2,896,000 square feet of commercial, and 1,498,000 square feet of industrial development.

SAN LUIS OBISPO

As the main business, entertainment, and educational hub for San Luis Obispo County, the City of San Luis Obispo is an ideal location for growth in the form of higher density infill development. Located along Highway 101 in the center of the County, it has an impressive jobs-to-population ratio of 0.86. According to the 2006 General Plan update, the City's estimated urban reserve capacity is 57,700 people, although the current population is approximately 49,700. Therefore, the City should be able to accommodate another 8,000 residents. Advantages to growth in the City include comprehensive existing public works infrastructure and a decent public transit system. The largest potential obstacle appears to be a lack of appropriate infill sites, as well as geographic constraints.

SAN MIGUEL

Due to its prime location along the Highway 101 corridor, proximity to Fort Hunter/Liggett, and infill development opportunities, San Miguel is a desirable location for growth. Obstacles to growth in San Miguel include a relatively low jobs-to-population ratio of 0.16. The San Miguel Area Residents Trust (SMART) is "dedicated to the promotion of the historic San Miguel community through downtown development and the preservation of rural lands." The commitment can spur a higher jobs-to-population ratio. According to their website http://www.sanmiguelsmart.com/smartgrowth.html, SMART supports the following County General Plan and Strategic growth goals:

- Promoting residential and commercial development within the current San Miguel Community Services District.
- The San Miguel Community Design Plan.
- Preserving rapidly vanishing open space and ranch & farmlands.
- Reducing urban sprawl through the conservation of agricultural lands.

SHANDON

The Shandon community is especially poised for growth according to a 2005 Market Study conducted by the consulting firm of Mundie & Associates as part of the Shandon Community Plan. This study states that although the population was only 1,000 in the 2000 Census, "with the amount of growth that could (theoretically) be accommodated on the major land holdings that are expected to be proposed for development, Shandon could grow to a size that will support not only a supermarket but also a variety of other retail and service businesses" (Mundie & Associates, 2005, p. 49). The report goes on to mention that Shandon could grow to a maximum population of 15,000 upon build-out. Future Shandon businesses will be able to take advantage of its location at the junction of State Routes 41 and 46 by catering not only to local residents but also to travelers and wine country tourists. The jobs-to-population ratio in Shandon is 0.22. Potential obstacles to growth include the lack of a sewer system as well as lack of local healthcare facilities. (The closest community hospital is in Templeton.)

SECTION II: EXISTING DOCUMENT SUMMARIES

HOUSING AND EDUCATION DOCUMENT REVIEW
HOUSING: SAN LUIS OBISPO COUNTY HOUSING ELEMENT

Pursuant to mandates required for certification by the California Housing and Community Development (HCD), local governments must update the Housing Element of their General Plan every 7-years. The San Luis Obispo County Housing Element presents overall goals, objectives, policies and program actions the county plans to implement in order to facilitate housing in unincorporated areas of San Luis Obispo County. In order to facilitate the provision of affordable housing, HCD designates each region's share of the statewide housing need, or Regional Housing Need Allocation (RHNA). Unincorporated areas of the County share part of the regional housing needs, along with the seven incorporated cities in the County. Unincorporated areas of the County also assume the responsibility for identifying adequate sites for 7,020 housing units between January, 2001 and June, 2008 During 2001-2003, San Luis Obispo County built 359 low and very low-income units, 152 moderate income units and 1,928 above moderate income units.

Unincorporated San Luis Obispo County's Share of Housing Needs

	Very Low Units	Low Units	Moderate Units	Above Moderate Units	Total Units
2001 SLOCOG adopted RHNA	1,029	778	929	4,284	7,020

Figure B.5 Unincorporated San Luis Obispo County's Sare of Housing Needs

Education: California Department of Finance for San Luis Obispo County

According to enrollment numbers obtained from the California Department of Finance. K-12 enrollment in San Luis Obispo County has been in decline since the early 2000s, and is projected to increase slightly by 8 2018. This trend can be observed in many counties across California. According to data obtained from the State of California, Shandon Joint Unified School District's four schools currently have the lowest pupil to teacher ratio in the County. San Miguel Joint Union School District and Paso Robles Joint Union School District also have pupil to teacher ratios below 20. The highest pupil to teacher ratio in the County is in San Luis Coastal Unified School District, which exceeds the State of California average.

On the basis of pupil to teacher ratio, there is room to grow in some County schools, including schools in San Miguel, Shandon, Cambria, Paso Robles and Atascadero Schools. Because schools in San Luis Obispo Coastal Unified School District and Lucia Mar Unified School District enroll the most students and have the highest pupil to teacher ratio, development in rural San Luis Obispo, Oceano, Los Osos and Nipomo may require new schools to be built to accommodate additional children. It should be noted that pupil to teacher ratios are limiting statistics. Because class sizes in primary schools are required to have smaller pupil to teacher ratios, districts without any high schools or with a high number of primary schools will post lower pupil to teacher ratios. The pupil to teacher ratio only points to possible overcrowding.

Department of Finance Enrollment Trends and Predictions

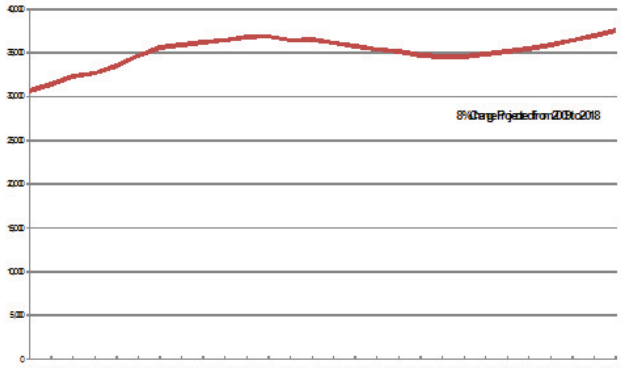


Figure B.5

ENVIRONMENTAL RESOURCES DOCUMENT REVIEW

COUNTYWIDE RURAL PLAN

The Countywide Rural Plan is a current County planning effort intended to simplify and consolidate the 15 rural planning areas into a few, watershed delineated sub-regions. The final document will reorganize the County land use element, land use ordinance, coastal plan policies, and coastal zone land use ordinance. The initial phase of the effort to take place from 2008 to 2009 will focus on outreach with the public, interested organizations, and stakeholders. From 2009 to 2010 the effort will prepare technical reports and feasibility reports focusing on identifying appropriate rural areas for expansion while considering agriculture and natural resource protection. The goals of the process are to transform the current rural growth trends and create a more cost and energy efficient development model.

The Countywide Rural Plan is a very ambitious undertaking that should incorporate the principles of Strategic growth. The plan will result in powerful regulatory and implementation measures being formulated at a site specific level. While the potential of this document to be a valuable tool for Strategic growth implementation exists, it could also be mired in political battles and lose its ambitious intent.

AGRICULTURE AND OPEN SPACE ELEMENT

The San Luis Obispo County Agriculture and Open Space Element seeks to identify productive farms and ranches and establish goals, policies and implementation strategies aimed at preserving the long-term stability and productivity of these resources. The Element also seeks to identify farmland and open space worthy of protection and establish goals, policies and implementation strategies aimed at the long-term protection of these resources.

The Agriculture and Open Space Element's goals as they pertain to agricultural resources include supporting County agricultural production, conserving agricultural resources, protecting agricultural lands, and encouraging public education and participation. The Element's goals as with regard to open space resources include identifying and protecting open space, managing open space, preventing urban sprawl, and encouraging public education and participation.

The County Agriculture and Open Space Element also seeks to preserve agriculture and open space resources, in part by preventing sprawl and development in areas designated agriculture or open space. With respect to the Element, growth should be centered away from identified farming and open space resources.

SHANDON STUDY AREAS ENVIRONMENTAL CONSTRAINTS AND ANALYSIS, 2006

The Shandon Study Areas Environmental Constraints and Analysis prepared by the Morro Group, Inc. provides a concise definition and explanation of federal and state and local policies that affect endangered species.

The Study summarizes the 1973 Federal Endangered Species Act (FESA). The FESA provides legal protection for plant and animal tax that are in danger of extinction, and classified as either threatened or endangered under the Endangered Species Act. The Section 9 of the FESA protects federally listed plant and animal species from unlawful take. The study also summarizes concept of "take" as defined in the FESA:

"Take" is defined by FESA as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." The USFWS regulates activities that may result in "take" of listed species. Constraints to listed species resulting from the implementation of a project would require the responsible agency or individual to formally consult with the [U.S. Fish and Wildlife Service] USFWS to determine the extent of impact to a particular listed species." (2006, Morro Group, Inc., P. III-71-III-72)

Biological Assessments are also used in some instances to determine "take" constraints. The Study defines Biological Assessments as, "is a study analyzing constraints to species listed under the FESA. The U.S. Fish and Wildlife Service issues a Biological Opinion, which includes an incidental take allowance and includes terms, conditions, and measures to reduce take." (2006, Morro Group, Inc., p. III-72)

Habitat Conservation Plans (HCP) can also be used to address circumstances where "take" is unavoidable. An HCP is defined as a mitigation plan to "avoid, minimize, and mitigate for take that must be approved by the U.S. Fish and Wildlife Service (USFWS)" (2006, Morro Group, Inc., p. III-72). HCPs are very time consuming and costly but they must be created in the following scenario:
"If there is the potential for a project to impact federally listed species on private lands for which there is no federal nexus, the applicant must prepare a Habitat Conservation Plan (HCP) under FESA Section 10(a). The HCP includes measures to protect some of the area and mitigate the effects of incidental take of species that will be covered by the HCP." (Morro Group, Inc., 2006, p. III-72)
The Study also summarizes State policies and regulations. First it reviews the California Environmental Quality Act (CEQA). CEQA guides the determination of significance thresholds in a project study area that would have a significant impact on biological resources. Appendix G of the State CEQA guidelines defines these scenarios for a project area. (Morro Group, Inc., 2006, p. III-74)

Next the Study discusses the 1984 California Endangered Species Act (CESA). CESA ensures legal protection for plants listed as rare or endangered, and wildlife listed as threatened or endangered, but it has a much less expansive definition of "take" (limited to direct takes such as hunting, shooting, capturing, etc.) that does not include the broad "harm" and "harassment" definitions in federal law. (Morro Group, Inc., 2006, p. III-73-III-74)

The California Department of Fish and Game (CDFG) regulates any activity that may result in the "take" of such species and are empowered to review projects for their potential to impact state-listed species and California Species of Special Concern (CSC) species, and their habitats. (Morro Group, Inc., 2006, p. III-74) The CDFG also maintains a list of CSC species based on limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. CDFG has authority during the CEQA process to review potential constraints to rare plant species and require mitigation to reduce the level of significance. (Morro Group, Inc., 2006, p. III-73-III-74) It is important to understand the federal and state policies that affect endangered species because of their potential to change land use policy. Strategic growth aims to concentrate development and avoid areas exposed to endangered species. Locally, an example of an endangered species that exists throughout San Luis Obispo County is the San Joaquin Kit Fox.

GUIDELINES FOR COMPLETING THE KIT FOX HABITAT EVALUATION FORM SAN LUIS OBISPO COUNTY

The San Luis Obispo County Department of Planning and Building created a Kit Fox Habitat Evaluation Form that is to be used as a tool for addressing impacts to the San Joaquin Kit Fox from project related activities. The use of the form, associated mitigation, and implementation of the previously established avoidance criteria (preconstruction surveys, etc.) should, in most cases, eliminate "take" of this species and reduce project impacts to less than significant. However, "take" permits from CDFG and USFWS will be necessary if the project may result in the death or injury to a kit fox. Additionally, USFWS may require a Habitat Conservation Plan for any project that it determines may result in "harm" under the Federal Endangered Species Act.

A GUIDE TO THE SAN LUIS OBISPO COUNTY SAN JOAQUIN KIT FOX MITIGATION PROCEDURES FOR THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA), FEBRUARY 21, 2008

The San Luis Obispo County Department of Planning and Building also created a pamphlet to help project applicants more easily understand the County permitting process and CEQA mitigation requirements for discretionary projects that occur within the San Joaquin kit fox habitat area. (2008, San Luis Obispo County Department of Planning and Building, pp.1-4.) The pamphlet is a user friendly document that takes a potential project applicant through the following topics:

- Standard Kit Fox CEQA Mitigation Measures.
- Permit Processing Steps for Projects Occurring Within the Kit Fox Habitat Area.
- Process for Grading Permits.
- Discretionary Permits (e.g. Minor Use Permits, Conditional Use Permits, Lot line Adjustments, Parcel Maps, and Tract Maps).

A discretionary permit requires a decision-making body to exercise judgment before project approval. The County has discretionary review on applications such as Parcel Maps and Tract Maps, Minor Use Permits, Conditional Use Permits, Lot Line Adjustments, and General Plan Amendments. (2008, San Luis Obispo County Department of Planning and Building, pp.1-4

ENVIRONMENTAL HAZARDS DOCUMENTS AND DEPARTMENT OF DEFENSE REVIEW: COUNTY LOCAL HAZARD MITIGATION PLAN

The San Luis Obispo Local Hazard Mitigation Plan identifies the most significant hazards faced by the County. Hazards identified include Wildfire, Flooding, Extreme Weather, Earthquakes, Coastal Erosion, Landslides, Naturally Occurring Biological Threats and Insect Infestation. Mitigation strategies are listed for each hazard but the most important strategy identified is avoiding development in hazard prone sites. Strategic growth should avoid all sites that exhibit extreme natural hazards, without exception. California has a long, costly and deadly history with natural disasters but such events are not an inevitable phenomenon and can be diminished or avoided through strategic planning. Planning and growth that does not account for natural hazards has dramatically amplifies the negative effects of natural disasters, continues to cost taxpayers billions and puts innocent lives at risk.

PERSONAL COMMUNICATION WITH THE DEPARTMENT OF DEFENSE

The Army National Guard operates large facilities near the North part of the County. Due to a mission change and implementation of the nationwide Defense Base Closure and Realignment Commission's policies, the facilities have been expanding and are projected to significantly expand in the near future. Through personal communication with and documents obtained by from the Department of Defense, Active and Reserve, DOD Civilian and DOD retired populations within 40 miles of Fort Hunter Liggett have increased by 30% since 2000, an increase twice the pace of the County as a whole. In 2000, the population was 3,365 and in 2008, the population was 4,323. Future growth numbers were not available but antidotal sources report that a steady increase in personnel should be expected in the near future.

According to SLOCOG Planning Director Steve Devencenzi, this emerging demographic shift was not been included in local long range planning efforts. The urban areas in the far north portion of the County growing faster than predicted by traditional models. The places most immediately affected are San Miguel, Lake Naciamento, and Paso Robles. Strategic growth in these areas should incorporate the needs of military personnel and their dependents.

TRANSECT PLANNING THEORY

Transect theory (or concentric zone theory), as applied to urban planning, developed out of New Urbanism. The foundational concepts go back much further to the fields of geography, philosophy and most importantly to the study of natural environments in ecology.

The term refers to the varieties of land use from an urban core to a rural boundary in a natural and logical order. One of the main proponents, Andres Duany, describes transect as, "natural law that can be observed anywhere and everywhere. A natural law is defined as a principle derived from observation of nature by right reason and thus ethically binding in human society" (2002). The general New Urbanist transect classifications are seen throughout the world and throughout human history in settlements built before modernist transportation and zoning principals. These classifications are as follows.

- **Urban Core**
- **Urban Center**
- **General Urban**
- **Suburban**
- **Rural**
- **Natural**

The main point of the schematic is to show the order of the built environment to the natural one with logical steps in between. This can be contrasted with our current modernist planning process which prescribes the segregation of zoning categories with the common outcome of sprawl land development patterns. Further, the current system has led to a balkanization of the field into unconnected specialties. All of these, according to Duany, are part of the failure of planning. Despite this failure the standardization of the current system makes it easy to plan, administer and measure leading to its perseverance (Duany, 2002).

The 1994 Congress for the New Urbanism desired to emphasize the interconnectedness of all concepts in planning by promoting transect theory. Transect theory is presented as an alternative theoretical framework which can be used to implement New Urbanism and to help it to gain more widespread acceptance. As a system of classification it can also be an instrument of design as well (Duany, 2002).

Rural Transect Plan

Figure D.1 Rural Transcect Plan

REDUCED MAINTENANCE COSTS FOR COMMUNITIES, HOME OWNERS, AND DEVELOPERS

The Northeastern Illinois Planning Commission and Chicago Wilderness Conservation created a document called the Design Resource Manual: Language and Guidelines for Updating Local Ordinances (Manual), in 2003. This Manual provides a comprehensive report on how strategic growth can reduce maintenance costs form communities, home owners and developers. Below are experts from the Manual that compliment the Vision.

COMMUNITY BENEFITS

1. Unlike storm sewers, curbs, gutters, and sewer inlets, swales and filter strips theoretically never need to incur replacement costs (except in cases of extreme erosion), but rather require periodic maintenance consisting of sediment or debris removal and general cleaning (NIPC 1997a). (Dreher and Jaffe, 2003, pp. 11-12)

2. Filter strips may reduce maintenance costs for components of downstream drainage systems because they remove sediment and other pollutants (NIPC 1997a). (Dreher and Jaffe, 2003, pp. 11-12)

3. Swale maintenance costs can be reduced if upstream sources of sediment—particularly from construction activities—are well controlled, and if local ordinances are enforced prohibiting homeowners from dumping materials into swales (NIPC 1997a). (Dreher and Jaffe, 2003, pp. 11-12)

HOMEOWNER BENEFITS

1. Decreases maintenance costs. [Also see community benefits, above.] Turf grasses require fertilizers, water, pesticides and other measures annually to keep lawns in quality condition (The Countryside Program 1998). (Dreher and Jaffe, 2003, p. 12)

2. Native landscapes require weed control and minimal watering in the first few years to get established, then occasional mowing or controlled burns for long-term management (Pizzo & Associates 2001). (Dreher and Jaffe, 2003, p. 12)

3. Smaller yards that have natural landscaping require less maintenance thereby not only reducing costs but also allowing people more free time to spend enjoying the open space amenities located around them (Arendt 1999). (Dreher and Jaffe, 2003, p. 12)

DEVELOPER BENEFITS

1. Installation and maintenance costs are lower for natural (native) landscaping compared with common turf grasses; landscaping and other installation costs [are reduced]. Pizzo compared the installation and maintenance costs of new turf grass lawn from seed with the costs of native landscaping with seed in an area less than one acre. He found that installation costs were $5,330 for native landscaping and $8,190 for turf grass. Thus, native landscaping installation showed a 35 percent cost savings over turf grass. (Dreher and Jaffe, 2003, p. 13)

2. Over a 10-year period, the cost to install and maintain native plantings came to $14,152. The same costs for turf grass came to $47,497. Thus, native landscaping installation and long-term O&M costs showed a 70 percent cost savings over turf grass (Pizzo & Associates 2001). (Dreher and Jaffe, 2003, p. 13)

3. In a 1996 study, the cost to install and maintain native plantings over a 10-year period came to $9,800 per acre. The same costs for Kentucky blue grass came to $59,400 per acre. Thus, native landscaping installation and long-term O&M costs showed an 83 percent cost savings over turf grass (NIPC 1997b). (Dreher and Jaffe, 2003, p. 13)

4. A comparison of annual maintenance costs found that open space costs about $75 per acre to manage, lawns cost about $255 per acre, and passive recreation areas (trails, bike paths, etc.) cost about $200 per acre (CWP 1998). (Dreher and Jaffe, 2003, p. 13)

5. In a California development, virtually all the runoff flows into a gravel-filled infiltration trench meandering through open areas behind most of the homes. This natural stormwater management design saved approximately $800 per household in engineering and construction costs, which enabled the developer to increase the landscaping budget by a like amount. (Dreher and Jaffe, 2003, p. 13)

6. The marketability of a development in enhanced by the lower maintenance aspects associated with native landscaping and smaller lawns. A 1995 Newsweek survey found that two-income families prefer smaller lawns in order to reduce their lawn maintenance activities (CWP 1998). (Dreher and Jaffe, 2003, p. 13)

COUNTY MASS TRANSPORTATION FUNDING SOURCES

TRANSIT SYSTEM FUNDING:

The following table summarizes available funding mechanisms and grants for a regional bus transit system in San Luis Obispo County. The table is organized in terms of the following categories of funding sources:

- Fares, Fees and Taxes;
- Partnerships; and
- Grants;

Summary of Recommended Sources for SLO Transit Funding			
PARTNERSHIPS			
Item	**Description**	**Recommended Action**	**Funding Source**
Employee Commuter Program	Business owners buy bulk transit permits for their employees at reduced fares.	• Offer this program to all businesses with 10 or more employees that are located within 1/3 of a mile of a transit station or bus stop.	County Businesses
Cal Poly, Cuesta, and Hancock College Student Pass	Cal Poly, Cuesta, and Hancock College pay a flat annual rate that allows their students to ride the regional transit system for free.	• Offer an annual contract to local colleges and universities. • Each year the terms are reviewed depending on fluctuations in enrollment, etc.	Local Colleges and Universities
Student Bussing	Merge school bus service for local school districts into the regional transit system to save on duplicate costs.	• Aggressively court local school districts to contract with the regional transit system for school bus service. • Renew contracts on an annual basis depending on fluctuations in enrollment, and changes in service area.	Local School Districts
Senior Pass	Local senior communities including assisted care facilities pay a flat annual rate that allows their tenants to ride the regional transit system for free.	• Offer an annual contract to local senior communities and assisted care facilities. • Each year the terms are reviewed. • If successful, consider extending program to other types of local group homes.	Local Senior Communities and Assisted Care Facilities

Summary of Recommended Sources for SLO Transit Funding			
FARES/FEES/TAXES			
Item	**Description**	**Recommended Actions**	**Funding Source**
Bus Fare	One-time use tokens or monthly bus passes.	• Require full fare for adults and provide discounted and/or fare waivers for children, seniors, and students.	Transit Fares
San Luis Obispo County Fuel Tax	Additional County tax added on top of the State Fuel Tax. All funds go specifically towards the operations and maintenance of the regional bus transit system.	• Consider a 1.5% County tax on gasoline purchases made at service stations.	Tax Revenue
Vehicle License Fees (VLF)	Revenue from the VLF could be used to fund the operating costs of the regional bus transit system in SLO County.	• Lobby the State of California to increase the VLF to 2%.	Tax Revenue
Road Impact Fees	The County could mandate that a portion of the existing "Road Impact Fee" is used for capital expenditures associated with the County's mass transit system.	• Allocate 10% of the "Road Impact Fee" to mass transit.	Fee Revenue

Summary of Recommended Sources for SLO Transit Funding			
GRANTS			
Item	**Description**	**Recommended Action**	**Funding Source**
Bus and Bus Facility Grants	The Buses and Bus Related Equipment and Facilities program provides capital assistance for new and replacement buses, related equipment, and facilities.	• Consider using this type of grant for capital expenditures.	Federal Transit Administration
Rural and Small Areas Grants	This program provides formula funding for the purpose of supporting public transportation in areas of less than 50,000 people.	• Check availability of funding through the State. • Use funds for capital, operating, and administrative expenses associated with the regional transit system.	Federal Transit Administration
Clean Fuels Grant Program	This program supports emerging clean fuel and advanced propulsion technologies for transit buses and markets for those technologies.	• Research feasibility of using funds to purchase hybrid-electric buses.	Federal Transit Administration
Transit-Oriented Development (TOD) Housing Program	The TOD Housing Program can be used for development and/or construction of mixed-use or rental housing, homebuyer subsidies, or infrastructure improvements near transit stations.	• Research the feasibility of using TOD Housing Program funding to construct mixed-use multi-family housing near County transit "pulse points".	California Department of Housing and Communit y Development (HCD)
Partnership Planning Grant	This grant funds transportation planning studies of multi-regional and statewide significance in partnership with Caltrans.	• Consider using this type of grant to prepare a study of potential mass-transit improvements.	FHWA State Planning and Research
Community Based Transportation Grant	This grant funds coordinated transportation and land use planning that promotes public engagement, livable communities, and a sustainable transportation system which includes mobility, access, and safety.	• Consider using this type of grant to prepare a study of potential mass-transit improvements.	Cal Trans State Highway Account
Environmental Justice Context Sensitive Planning Grant	Promote community involvement in planning to improve mobility, access, and safety while promoting economic opportunity, equity, environmental protection, and affordable housing for low-income, minority, and Native American communities.	• Consider using this type of grant to research potential mass-transit improvements by creating a community workshop program.	Cal Trans State Highway Account

Summary of Recommended Sources for SLO Transit Funding			
GRANTS			
Item	**Description**	**Recommended Action**	**Funding Source**
Transit Technical Planning Assistance Grant	This grant funds public transportation planning studies in rural or small urban areas of California (transit service area with population of 100,000 or less).	• Consider using this type of grant to prepare a study of potential mass-transit improvements.	FTA Section 5304
Infill Infrastructure Grant Program	Infill Infrastructure grants are used in the development of parks, open space, utility infrastructure, streets, transit structures, and sidewalks or streetscape improvements in infill areas.	• Research feasibility of using this type of grant to construct transit structures.	California Department of Housing and Community Development (HCD)
Sustainable Communities Grant and Loan Program	Studies, plans, or construction of projects that promote sustainable development.	• Research the feasibility of using this type of grant to construct mixed-use transit hubs.	California Pollution Control Financing Authority
California Infrastructure and Economic Development Bank (I-Bank)	Located within the California Business, Housing and Transportation Agency, I-Bank finances public infrastructure and private investments that promote economic growth, revitalize communities and enhance the quality of life.	• Consider using I-Bank funding for bus route improvements.	I-Bank
California Statewide Communities Development Authority (CSCDA).	CSCDA is a joint powers authority sponsored by the California State Association of Counties and the League of California Cities to provide local governments and private entities access to low-cost, tax-exempt financing for projects of public benefit.	• Consider using CSCDA funding to construct transit stations.	California Statewide Communities Development Authority (CSCDA).

SLO County Mass Transportation Design and Funding Goals and Policies

Transit System Design Goals:

Goal #1: Create comfortable and secure transit stations and stops.

Policy 1A: Provide an enclosed climate-controlled passenger waiting area with seating at all transit stations.

Policy 1B: Provide a minimum of one (1) on-site licensed security officer during operating hours at each transit station.

Policy 1C: Provide overhead shelter from inclement weather in bus loading areas.

Policy 1D: Provide regularly cleaned bathroom facilities with showers at urban and rural community based transit stations. Park'n'Ride transit stations shall require bathroom facilities without showers.

Policy 1E: Provide semi-enclosed bus shelters with seating that protect passengers from inclement weather at all bus stops.

Policy 1F: Provide a safe level of both pedestrian-scaled and automobile-scaled lighting at all transit stations and stops.

Policy 1G: If cell phone service is not available from major cellular carriers at rural bus stops, provide an emergency phone instead.

Policy 1H: At transit stations, place all buses on one side of the street so that people don't have to cross the street in order to transfer.

Policy 1I: To increase transit station visibility and safety, use large windows wherever possible in the facility's design.

Goal #2: Make use of the most current technology to maximize bus information available to passengers.

Policy 2A: Disseminate route information via real-time electronic billboards at all transit stations and at major bus stop shelters.

Policy 2B: Provide real-time route information online.

Policy 2C: Provide free wireless internet access at all transit stations.

Policy 2D: Provide real-time route information via telephone.

Goals #3: Increase the visibility of the transit network in the community.

Policy 3A: Provide directional and wayfinding signage in and around the bus stations. Signage text should be clear and concise. Signage design should be attractive and prominent without creating a distraction for drivers. Signage meant for pedestrians should be illuminated at night by either a direct or indirect light source.

Policy 3B: Integrate public art such as sculpture and mosaic into the design of transit stations to increase street visibility.

Policy 3C: Use continuous permeable paving to create a direct pedestrian path to the transit station entrances.

Goal #4: Integrate bus transit with other forms of transit in the County.

Policy 4A: Provide a bus route with stops at both the City of San Luis Obispo bus transit station and the City's Amtrak station. Additionally, consider a bus route that also makes a stop between the Paso Robles bus transit station and the Paso Robles AmTrak station.

Policy 4B: Provide a bus transit station at main County Park'n'Ride lots.

Policy 4C: Provide short and long term bike storage at all bus stations. Storage areas should be securely lit and sited in areas of the transit stations that experience regular foot traffic.

Policy 4D: Provide a direct and/or express bus route between the City of San Luis Obispo bus transit station and the San Luis Obispo County Airport.

Policy 4E: Provide an after-hours on-call shuttle service for bus passengers with schedules that exceed bus transit hours of operation.

Policy 4F: Provide a carpool "Ride Matching" service with a dedicated meeting area at the Park'n'Ride transit stations.

Goals #5: Provide basic amenities associated with bus travel at all transit stations.

Policy 5A: Provide ticket counters for the purchase of tokens and/or passes at all transit stations.

Policy 5B: Provide a change machine at all transit stations.

Policy 5C: Provide both food and beverage service at all transit stations through either on-site permanent retailers, dedicated space for transitory "taco trucks" that sell goods during peak passenger volume hours, dedicated space for temporary food carts, or only in very low passenger volume stations – vending machines.

Policy 5D: Provide sources of news information at all transit stations via on-site permanent retailers, or newspaper racks.

Goals #6: Maximize the ease of circulation at transit stations and stops.

Policy 6A: Provide a minimum 20' wide Kiss'n'Ride drop off lane at transit stations.

Policy 6B: Provide a one way loop for bus loading and drop off at transit stations.

Policy 6C: Provide a dedicated taxi waiting area at transit stations. This can take the form of either two or more dedicated on-street parallel parking spots, or a taxi layover lot as lot size permits.

Policy 6D: Provide a dedicated bus layover area at the Downtown Transit Center transit for three (3) buses.

Policy 6E: Provide prominent on-street demarcation of bus stops, and consider the use of "bus only" traffic lanes as ridership increases and the system is built-up.

Goal #7: Maximize the use of green technology in transit station, stop, and bus design.

Policy 7A: Use alternative fuel sources for buses such as bio-diesel, or hybrid-electric systems.

Policy 7B: Use solar panels to generate electricity to run the night-time lighting at bus stops. Also, consider using solar panels to generate electricity at bus stations.

Policy 7C: Use on-site rain water cisterns to catch and collect grey water for use in bathroom toilets and for landscaping irrigation at transit stations.

Policy 7D: Research the cost and feasibility of using geothermal technology to heat and cool transit stations.

Policy 7E: Recycle all applicable construction waste generated during transit station construction or renovation.

Policy 7F: Incorporate green roofs in the transit station designs.

Policy 7G: Use permeable paving and drip-irrigated drought-resistant plant species in the design of transit station landscaping and hardscaping.

Goal #8: Build the immediate areas around transit stations as “pulse points” of activity.

Policy 8A: Provide on-site retailers such as coffee shops, delis, newspaper stands, and convenience stores at City and community transit stations.

Policy 8B: Provide telecommuting and community meeting facilities within a ¼ mile of transit stations for public use.

Policy 8C: Whenever possible, locate civic and educational uses such as post offices, police stations, libraries, parks, and schools within a ¼ mile of transit stations.

Policy 8D: Provide development incentives to encourage higher density residential and commercial mixed-use development within 1/3 of a mile of transit stations.

BIKEWAY CIRCULATION CASE STUDY

Concerns surrounding increased traffic, depleting resources and population growth have presented San Luis Obispo County with opportunities to make changes towards effective and sustainable land use decisions. As a result, the County is dedicated to finding sustainable innovations that include renewable energy sources and incorporating Strategic Growth principles in land use planning decisions. Countywide strategies include proposals for amending the land use and circulation elements of the County General Plan. In effort to provide assistance to the county, the purpose of this bikeway study is to place an emphasis on how individuals and communities can engage together in community building to make their streets and city centers safer and livable for the pedestrians and cyclists who would use them.

City streets are varied and serve as a means for different modes of transportation, community corridors or gathering spaces. Often, streets become the social center of many cities serving a variety of functions in the daily routines where people live, work, shop, play and interact (Appleyard, 1981). While streets have primarily served the needs of the automobile, they have also become a place of conflict between the pedestrian and cyclist whom are requiring safer routes to travel upon whereby, making it necessary for communities to find a balance and accommodate all users.

The concept of these case studies is to provide an understanding of public right-of-way accessibility and incorporate designs and/or programs that minimize the negative impacts of motor vehicle use on bicyclists and pedestrians. Included in the case studies are features that foster the growth of a functional urban setting based on Smart Growth principles and Low Impact Development (LID) design. Behind the studies are engineers, planners, landscape architects, public health and safety officials and promoters of alternative modes of transportation whom are dedicated to making bicycling and walking a viable transportation option within a given community.

An example of one movement towards this effort is "The Safe and Complete Streets Act of 2008" (H.R. #5951) promoted by Doris Matsui, D-California 5th District, which requires each state to accommodate the safety and convenience of all users in accordance with Complete Street principles (Matsui, 2009). Since its inception, cities such as Portland, Oregon; Boulder, Colorado; and Davis, California have been awarded Platinum status for their efforts in cyclist and pedestrian safety, and greenway systems, which placed an emphasis on uninterrupted commuter bikeways (Eckerson, 2008). Another concept practiced is the deliberate slowing of vehicle speeds on public and private streets by means of traffic calming.

In effort to assist San Luis Obispo County with its objective of pursuing sustainable growth in its future growth and planning efforts, a range of bicycling programs were researched that have implemented successful Smart Growth principles, LID design, cyclist and pedestrian safety strategies and traffic reduction policies that could apply to San Luis Obispo County. The case study research looks at practices, which provide resources and guidance for implementing programs that will serve the community, the economy and the surrounding environment.

The following study includes:

- San Luis Obispo County Bicycle Plan
- U.S. Department of Transportation-Road Classification
- Class I Bike Path
- Class II Bike Lane
- Class III Bike Route
- Bikeway Design Alternatives
- Complete Streets Program
- Smart Growth Low Impact Development
- Traffic Calming - Institute of Traffic Engineers
- Bike and Ride Program
- Bicycle Share Program
- Federal Highway Administration Bicycling on Federal Lands

Combined, these case studies supply information as whole, while the individual cases also offer linkages between a specific process and outcome. Each case study can provide an understanding of cycling and pedestrian issues and needs, which can extend experience or add strength to the plan amendment process of San Luis Obispo County.
San Luis Obispo County Bicycle Plan

San Luis Obispo County Bicycle Plan

Summary

Bikeways provide safe, efficient and convenient routes as an alternative to automobile travel for purposes of commuting to work or school, shopping, or for recreation. Planned projects should not only include the construction of bikeways, but also consider the installation of facilities such as bike racks, bike lockers, bike and ride racks, signs, showers, the creation of bike maps and safety and education programs. The goal is to provide for an area-wide bikeway system to enable efficient and safe transportation for bicyclists riding to work, school, shopping, or for recreation.

Edna Valley - San Luis Obispo
Source:http://cache.marriott.com/propertyimages/s/sbpcy/phototour/sbpcy_phototour10.jpg

Principles

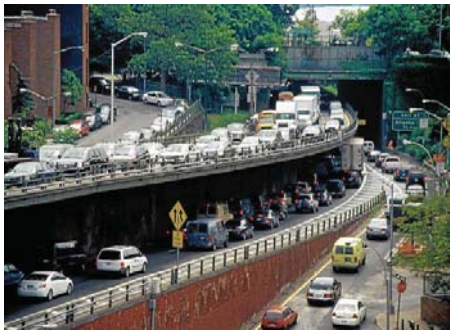
- Identify needed bikeway routes.
- Promote interconnection of designated bikeways in city, county, state plans for circulation, land use, parks, and public facilities.
- Promote linkages between transit and bikeways by accommodating bicycles on buses.
- Provide bicycle parking facilities at locations of employment, shopping, schools, transit facilities, and park-and-ride lots to increase the use of bicycles.
- Encourage employers to provide incentive programs and shower/locker facilities for employees who ride bicycles to work.
- Develop class I bike paths along selected riparian routes or other appropriate corridors where possible to link residential areas with important destinations (no dead-end routes).
- Avoid impacts to agricultural and environmentally sensitive areas.
- Provide for the safe and separate uses for the roads for bicycle and other vehicular traffic, including slow agricultural vehicles, through separate bike lanes.
- Promote educational programs.
- Promote potential funding sources for facilities and programs.

Roadway Classification

U.S. Department of Transportation Bicycling/Pedestrian Design Guidance

Summary

When developing standards for the accommodation of bicyclists and pedestrians, regard to travel speeds, lane widths, vehicle mix, adjacent land uses, traffic volumes and other critical factor must be incorporated. A fully integrated transportation system, shall adopt policies that include bicyclists, pedestrians and people with disabilities. In addition, state and local governments must encourage engineering judgment and allow the highway engineer to achieve the performance goal of providing safe, convenient, and comfortable travel for bicyclists and pedestrians by other means.



Roadway Classification-NY City
Source:http://blog.wired.com/cars/images/2008/08/01/new_york_traffic.jpg

Principles

- Arterial streets shall typically have a minimum of a four foot wide striped bicycle lane, however wider lanes are often necessary in locations with parking, curb and gutter, heavier and/or faster traffic. Accommodates Class II Bike Lane.
- Collector streets shall typically have a minimum of a five foot sidewalk on both sides of the street, however wider sidewalks and landscaped buffers are necessary in locations with higher pedestrian or traffic volumes, and/or higher vehicle speeds. At intersections, sidewalks may need to be wider to accommodate accessible curb ramps. Accommodates Class II Bike Lane.
- Rural/local streets shall typically have a minimum of a four foot paved shoulder, however wider shoulders and accessible sidewalks and crosswalks are necessary within communities and where traffic volumes and speeds increase. Accommodates Class III Bike Route.

Class I Bike Path

Summary

The U.S. Department of Transportation, Federal Highway Administration and the California Department of Transportation (Caltrans) identify three types of Bikeways in their Highway Design Guidance Manuals. The Class I Bikeway is referred to as a bike path. This bikeway type provides for bicycle travel on a paved right of way completely separated from any street or highway. Class I Bike Paths are considered the most desirable means of travel for the cyclist and pedestrian.

Bike Path - Bogota Columbia
Source:http://farm1.static.flickr.com/37/98363636_230e6497b2_o.jpg

Principles

- Generally striped and signed.
- Minimum width 8′ two-way travel.
- Recommended width 10-12′ for multi user (skater, pedestrian, etc).
- Motorized bicycle prohibited.

Bike Path - Burke Gilman Redmond, WA
Source:http://pro.corbis.com/images/WK034598.jpg?size=67&uid={DC407BD5-514A-4743-8C0A-FF563227F6B0}

Class II Bike Lane

Summary

The U.S. Department of Transportation, Federal Highway Administration and the California Department of Transportation (Caltrans) identify three types of Bikeways in their Highway Design Guidance Manuals. The Class II Bikeway is referred to as a bike lane. This type of Bikeway is for one-way travel on a street or highway, generally Arterial and/or Collector roads.

Bike Lane - Lake Sammamish, WA
Source: http://www.lakesammfriends.org/images/Front+Ave+Bike+Lanes+from+the+Broadway+Bridge+2.jpg

Principles

- Required 6″ solid white stripe between vehicle lane and bicycle lane.
- Required stenciled bicycle lane.
- Minimum width 4′ one-way travel.
- Recommended width 5-6′ for cyclist safety.
- Bike Lane width depends on parking and edge condition.

Class III Bike Route

Summary

The U.S. Department of Transportation, Federal Highway Administration and the California Department of Transportation (Caltrans) identify three types of Bikeways in their Highway Design Guidance Manuals. The Class III Bikeway is referred to as a Bike Route. This type of Bikeway is for shared use with pedestrian or motor vehicle traffic, generally local and neighborhood roads.

Bike Route - Oregon Coast
Source:http://farm2.static.flickr.com/1128/792192920_f8a60ea55a.jpg

Principles

- Bicycle travel generally in vehicle shoulder.
- Identified only by signing.
- Minimum width 12′ road way to centerline.
- Recommended width to 15 ½′ for cyclist safety.
- Combined lane and shoulder depends on parking and edge condition.

Bike Route - Iowa
http://onanov.com/pedzic/images/fifth_st_bikelane.jpg

Bike Route - Marin County
http://www.marinbike.org/News/BikeStriping.jpg

Bikeway Design Alternatives

Painted Bicycle Box

Portland joins New York City as one of the few cities with boxes that let cyclists rest in front of cars during red lights at many busy intersections. The green boxes reserve a spot for cyclists in front of cars when both are stopped at red lights. When the light changes, bicyclists will be able to move ahead of cars, whether continuing straight or making a right turn. Cars behind the boxes will not be allowed to turn right on a red light.

Painted Bicycle Box - Portland Or
Source:http://blog.oregonlive.com/breakingnews/2008/03/large_ph.bikebox.jpg

Painted Bike Lanes

The Department of Transportation is testing colors that would make bike lanes more visible to motorists. The colored bike lanes will give bicyclists "preferential status" and reduce motor vehicle speeding and illegal parking. Portland connects bike lanes, which bridge paths and guides bicyclist through dangerous intersections. Studies confirm that colored bike lanes increase bicyclist safety. Motorists yielded to cyclists in colored bike lanes 28% more than normal and motorists slowed or stopped when approaching a colored lane 23% more than normal. Seventy-six percent of cyclists and 50% of motorists said that the colored lanes felt safer.

Painted Bike Lane - Brooklyn NY
Source:http://brownstoner.com/brownstoner/archives/bikelanes.jpg

Painted Bike Lane - Portland Or
Source:http://www.transalt.org/files/newsroom/magazine/033Summer/images/06portland.jpg

Complete Streets

Summary

Complete Streets are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists and bus riders of all ages and abilities are able to safely move along and across a complete street. A balanced transportation system that includes complete streets can bolster economic growth and stability by providing accessible and efficient connections between residences, schools, parks, public transportation, offices, and retail destinations. Complete streets can reduce transportation costs and travel time while increasing property values and job growth.

Complete Streets Lansing Michigan
Source:http://walkbikelansing.com/yahoo_site_admin/assets/images/walk_and_bike_background.233135231_std.jpg

Principles

- Restructure procedures to accommodate all users on every project.
- Re-write design manuals to encompass the safety of all users.
- Re-train planners and engineers in balancing the needs of diverse users.
- Create new data collection procedures to track how well the streets are serving all users.

Implementation

- Educate residents about the value of complete streets
- Include private development contribution of complete streets.
- Provide available Federal Funding.
- Provide economic impact of complete street compared to traditional road design.
- Dedicate a portion of road space to different user.
- Promote cyclist integration into motorist travel as a safer than segregation transportation.

Smart Growth Low Impact Development (LID)

Summary

The LID approach provides opportunities to build the homes and businesses that we need, while conserving natural areas and drainage patterns. LID is accomplished as a two-step process: First, thoughtful site planning and Second, incorporation of "natural" stormwater best management practices (BMPs). Identification of critical site features such as wetlands, habitat areas, or drinking water protection areas that should be set aside as protected open space. Natural features, such as vegetated buffers and view sheds, will also play
an integral role in any LID planning exercise. After the critical open space areas are identified and set aside, sustainable development areas are then identified as *building envelopes*.

Low Impact Development - Sea Streets
Source:http://courses.washington.edu/gehlstud/Precedent%20Studies/SEA_Street.pdf

Principles

- Street width needs to be correlated to traffic volume, land use, and parking demand. Residential streets with less than 500 trips per day (generally serving less than 50 houses), can be designed at a minimum width so as to accommodate a fire truck (generally as narrow as 18 to 20 feet).
- On-street parking is a major consideration for street width and public safety. Options include parking on one side of the street only, shared travel and parking lanes for very low volume roads, or off-street visitor parking.
- Turning radii for streets and cul-de-sacs need to be designed to accommodate service and emergency vehicles. The requirements for school buses depend on the number of houses served by a street and local school district pick-up policies.
- Permeable pavements are designed to accommodate the design loading. If fire truck access is required, pavements and subgrades need to be designed accordingly. Alternative pavements, such as reinforced turf, are capable of supporting emergency vehicle travel, but special provisions may be necessary for stabilizing outriggers in the immediate vicinity of stationary vehicles.
- Roadside swales and other surface vegetated practices can be a safety issue for high volume, higher speed roads. Designers can apply a range of options such as roadside curbs with drainage slots or guard rails to protect traffic from the swale. For low volume, low speed residential roads, shallow swales represent very low risks to drivers, and sidewalks can be located on the opposite side of the swale, away from the road, to minimize risk to pedestrians.

Cost Considerations

Traffic Calming
Institute of Transportation Engineers

Summary

Traffic Calming is the combination of mainly physical measures that reduce the negative effects of motor vehicle use, alter driver behavior and improve conditions for non-motorized street users. Bike lanes, roundabouts curb bulb-outs, curvilinear streets and speed humps are all are forms of traffic calming which offer promise if properly applied to curb speeding and some forms of aggressive driving. Pedestrians especially benefit from traffic calming. Traffic calming, which employs physical changes to the roadway, signage or operation changes, can be thought of as a "silent policeman" enforcing speed limits where no law enforcement is present.

Traffic Calming – Yale Campus
Source:http://stroupeblog.files.wordpress.com/2008/02/woonerf-a.jpg

Principles

- Increase the quality of life.
- Incorporate requirements of people using street (working, playing, residing).
- Create safe and attractive streets.
- Reduce the negative effects of motor vehicles on the environment (pollution, sprawl).
- Promote pedestrian, cycle and transit use.

Objectives

- Achieve slow speeds for motor vehicles.
- Reduce collision frequency and severity.
- Increase the safety and the perception of safety for non-motorized users of the street.
- Reduce the need for police enforcement.
- Enhance the street environment (streetscaping, landscape).
- Encourage water infiltration into the ground.
- Increase access for all modes of transportation.
- Reduce cut-through motor vehicle traffic.

Bike and Ride Program

Bikestation-Long Beach, CA

In 2002, WestStart sponsored the development of the first facility of its kind in the U.S., Bikestation Long Beach. Bikestation plans, designs, and operates bike-transit centers, enabling bicycling and other alternatives to be an integral part of the transportation system. Facilities offer secure bicycle parking and related services to make cyclists' lives easier. Park your bike at one of our facilities and you can be assured that your vehicle is secure and covered. Bike Station is strategically located on the First Street Transit Mall in Long Beach, CA, a nexus for light rail, buses, pedestrians, and a local shuttle that services neighborhoods and key attractions.

BikeStation Long Beach
Source: http://www.calstart.org/programs/cm/cm_projects.php

Principles (Many Bike and Ride Programs provide):

- Shared-use bicycle rentals.
- Access to public transportation.
- Convenient operating hours.
- Bike shop.
- Professional repair services.
- Attended indoor bicycle parking.
- Information to plan your commute trips.

Bicycle Share Program

SmartBike, Washington D.C.

Summary

Clear Channel Outdoor in conjunction with the District Department of Transportation is among the new self-service public bicycle sharing rental program. SmartBike DC is a new and alternative transportation network that uses the latest technologies to facilitate user access and is structured to enhance the city's public transportation system. Located at key locations in the central business district, the bicycles provide a new way of discovering and moving around the city. The bike stations are modular and the bicycles are ergonomic and light-weight in a distinct design. Bicycles are parked at docking points which use a proprietary locking system to ensure that each b

Bicycle Share Program – SmartBike DC
Source:http://cache.daylife.com/imageserve/0fg84eU3Al767/610x.jpg

Principles:

- Encourage people to use alternative forms of transportation.
- Provide convenient way to get around urban and downtown areas.
- Benefit of quieter, safer streets.
- Reduced costs and congestions.
- Pilot Programs can be funded by grant from State Department of Transportation.
- Encourage destination and high density urban and public transit location use.

Federal Highway Administration (FHWA)
Guide to Promoting Bicycling on Federal Lands

Summary

Bicycling facilities are important transportation and recreation links to connect gateway communities, visitor centers, campgrounds, trailheads, and other attractions on Federal lands. This report presents benefits of bicycling, successful bicycling programs, policies that support bicycling, issues and challenges faced by land managers, and useful resources available to help meet these challenges. Bicycle transportation networks have significant positive impacts for the environment, health and visitor experience on Federal lands. Federal land managers have the opportunity to serve as positive national role models by mainstreaming bicycling to create sustainable transportation networks.

Bicycling the Route of the Hiawatha Trail
Source:http://drusilla.hsrc.unc.edu/cms/downloads/01_promoting_bicycling_entire_document.pdf

Principles

- Reduce transportation-related impacts on the environment.
- Provide better access to remote/sensitive areas.
- Enhance the quality of visitor experiences.
- Disperse visitors away from heavily used developed areas.
- Reduce automobile-related congestion and parking shortages.
- Promote good health among the participants.
- Create a more balanced transportation and recreation network to preserve these special places for future generations.

Implementation

- Tailor a program to meet the land unit needs and opportunities.
- Make bicycles available for use by campground employees, hosts and visitors.
- Open roadways to bicycling and walking by limiting auto access to more places.
- Use existing service roads for non-motorized travel.
- Promote lightly traveled roads to create connectivity for bicycling networks.
- Incorporate bicyclist use into routine traffic data collection.

CASE STUDY METHODS

Concerns surrounding increased traffic, depleting resources and population growth have can be opportunities for the County to make changes towards effective and sustainable land use decisions. The County is dedicated to finding sustainable innovations that include renewable energy sources and incorporating strategic growth principles in land use planning decisions. Countywide strategies include proposals for amending the land use and circulation elements of the County's General Plan.
In addition, land use decisions will include a focus on transportation reduction, sufficient water supplies, energy conservation, agriculture protection, affordable housing, job opportunities, wildlife protection, open space preservation, recreation, and other resources relied upon by the community.

Further, the County will also need to consider the increased demand for new development and the competing land use interests between public and private issues surrounding community growth.
In effort to assist the County with its objective of pursuing sustainable growth in its future growth and planning efforts, a range of cities and communities were researched that have implemented successful Smart Growth strategies and policies that could apply to the County. This case study research looks at both Smart Growth and Strategic Growth practices, which provide the tools for development that serves the community, economy and its surrounding environment. The applied implementation and strategies make it possible for communities to grow in ways that support economic development, jobs, strong neighborhoods, and a range of housing, commercial and transportation choices.

CASE STUDY SELECETIONS

The process of selecting case studies was based on several meetings with County planners, the County's definition of Smart Growth, and similarities in regional resource concerns. The combination of case studies includes:

- Transportation -Transportation Choices, Transit Oriented Development
- Water - Conservation and Re-use
- Energy - Alternative Energy Sources, Climate Action
- Financing
- Housing - Neighborhood Development, Affordable Housing
- Infill - Mixed Use, Creating Strong Sense of Place
- Agriculture - Environmental Protection
- Growth Management
- City - County collaboration
- Community Outreach

Common principles among regions and cities adopting Smart Growth are becoming clearer as more communities implement its overall practices. One overriding theme in these case studies is an approach that engages collaboration among stakeholders and local residents in the beginning stages of the development process. Another theme is high quality of life. These communities are vibrant places to live, work, shop and play, which increase the opportunity for economic success, private business prospects, and improvements to the local tax base.

ORGANIZATION OF THE CASE STUDIES

In order to condense the information from each case study, and for ease of review, the following points were included in a 1-2 page summary:

The title and location of city or community.

- An image to provide visual reference.
- A brief summary and description of the particular community and overall Smart Growth need.
- The overriding principles and goals.
- The strategies and implementation policies and/or recommendations
- Financing (where available).
- Constraints and lessons learned (where available).
- Reference and source information.

Combined, these case studies supply information as whole, while the individual cases also offer linkages between a specific process and outcome with reference to Smart Growth. Each case study can provide an understanding of complex issues and can extend experience or add strength to the plan amendment process of the County. The range and breadth of policies that communities can use to achieve vibrant, healthy, and diverse living environments go well beyond what has been identified. Extensive examination of actual policy, implementation and financing would be the recommendation for continued and future case study research.

POLITICAL WILL

The existing political environment in the County was reviewed. This was accomplished through participation in the October 14, 2008, Strategic Growth Readiness Workshop (Workshop) sponsored by the County Board of Supervisors and class presentations by public officials and other stakeholders (Guest Lecturers). Key points of the Workshop are presented below and are followed by summarizes of class presentations made by Guest Lecturers. Both the Workshop and Guest Lecturers highlight that implementation of strategic growth ordinances and policy is not possible without political will.

Countywide Collaborative Workshop regarding Strategic growth Readiness

The Countywide October 14, 2008, Collaborative Workshop (Workshop) regarding Strategic growth Readiness held at Grace Church in downtown San Luis Obispo brought together representatives from all the political jurisdictions and public agency officials within San Luis Obispo County. Participants included Mayors, City Council members, Community Service District representatives, the Board of Supervisors, members from the City and County Planning Commissions, SLOCOG, CALTRANS, Air Pollution Control District, the School District, and other public and quasi-public districts and the public. The Workshop identified inconsistent standards from different State agencies that currently create problems. The consensus appeared to be that local jurisdictions should collaborate in an attempt to notify Sacramento of these inconsistencies, and bring about change, if possible. Otherwise, this issue would create obstacles when trying to implement a Countywide Strategic growth plan. (2008, Liberto-Blanck, p. 1)

The local jurisdictions and County should expand collaboration on several other items, such as:

- Implementing a Strategic growth plan on sub-regional and regional levels.
- Considering joint Funding of infrastructure (e.g., roadways), resources (e.g., water supply), affordable housing, and economic development opportunities.
- Working jointly with the SLOCOG, County and local jurisdictions on countywide and community educational outreach programs.

Class Presentations by Guest Lecturers

The speakers covered a range of different topics during the class presentations. Regional as well as local perspectives were presented. Themes that were common throughout the presentations were:

- Develop stakeholder trust.
- Help people understand what Strategic growth is and is not.
- Strategic growth needs financing, budgets, and affordability.
- Create dense growth in urban areas and develop urban growth boundaries.
- Mobility and accessibility changes need to occur.
- Greenhouse Gas growth patterns need to change.
- Land use needs to change.
- Water preservation.
- Rural areas and open space preservation.

JAMES CARUSSO: Senior Planner, SLO County Planning and Building Department, 9/24/08

- To reduce GHG growth patterns have to change.
- Population approximately 270,000, 20% outside of any urban reserve line + 15,000 vacant lots in unincorporated areas.
- Financing infrastructure is paramount.
- County is heavily dependent on ground water.
- Link land use and transportation.
- Unincorporated areas not the solution because they are not full service communities (fire, infrastructure, etc).
- Strategic growth is not: rural development, large lot development, high water use, energy intensive, auto-centric.
- Growth Management Ordinance (GMO) is too high, hit only once in past 15 years.
- Where is this heading? Move development from rural to urban, decrease energy + VMT + water use per capita, provide for complete communities, range of housing choices.
- Goal: Perhaps 10% growth in rural areas instead of 40%.

RANDY DESCANZO: Senior Planner, Association of Monterey Area Governments, 9/29/08

- Region, May be bound by political, economic, demographic, or geographic forces.
- Mobility vs. Accessibility,Mobility deals with time (auto-centric, build more lanes) while land use deals with accessibility (why & where do people want to go).
- Increase live/work opportunities through zoning.
- VMT continues to increase due to increasing trip lengths, Euclidian zoning, increased HH income, & increased women in the workforce.
- Florida & Washington, Urban Growth Boundaries,They will not provide any infrastructure until boundaries are filled in.
- Scenario planning, created by Shell Oil in the 1960's, Establish a scenario (narrative, in the future where growth is and why), then utilize benchmarks to see if you are going in the right direction.

JAMIE LOPES: Senior Planner, San Luis Obispo County, Planning and Building Department, 10/1/08

- Population could increase by 27,000 by 2025 which would lead to 10,000 new homes (2.5 people/house).
- By 2025 all 7 cities will be approaching or have reached build-out.
- 40% County Building permits are in rural areas.
- 4 of 6 groundwater basins are at critical levels.
- Rural plans reduce 15 planning areas into 5 (3 inland & 2 coastal).

Understand the needs/desires of environmental, agricultural, & business stakeholders, find common ground when possible.

STEVE DEVENCENZI: Planning Director, San Luis Obispo Council of Governments, 10/06/08

- Policy objective is to help people understand Strategic growth.
- Place Model used.
- County Strategic Plan—land use changes.
- Use Watershed Based Development.
- Potential Growth—San Miguel and Camp Roberts.
- Identify areas sufficient to house all the population of the region including all segments of the population over the next twenty years.
- Alternative Energy—Sea Change, Community Choice State energy law.
- Marin County and Heritage Ranch example for alternative energy.

MICHAEL POWERS: City Manager, City of King, Monterey County, 10/22/08

- Tax system—property tax, vehicle taxes.
- Know what things true costs-and how much ongoing public service maintenance costs will be to service new and proposed development.
- Create a realistic city budget.
- Everything is based on economics.

MICHAEL WINN: President, Nipomo Community Service District, 10/27/08

- Trust amongst stakeholders and policy makers in a big issue
- Policy try to involve all stakeholders.
- We need growth: People depend on growth for income and state mandates growth (RHNA Numbers).
- Nipomo does not have jobs Santa Maria does we could handle more growth if there were a better transportation link between us.
- Some zoning needs to be changed 40 acre rural res. zones and build out frontage road along freeway.
- Possibly convert class IV soils to residential uses.
- Greatest constraints are in the following order: trust of stakeholders and lack of water in Nipomo.
- Currently building 30 million dollar pipeline from Santa Maria to get water and negotiating for water.
- Nipomo reclaims approximately 55% of water discharges back into water basin.
- Conservation most efficient to cut water costs.
- Traffic issues more of a issue of perception than reality only 1 intersection (near school) at LOS F and only twice a day.

JERRY BUNIN: Government Affairs Director, Home Builders Associat ion, 11/2/03

- County has several conflicting policies.
- HBA approves of smart growth the enemies are the politicians, environmentalists, and the public b/c they support initiatives but don't follow through.
- Working class cannot live in San Luis Obispo because public is not willing to make sacrifices necessary to increase density levels.
- Residential land is severely underused rule of thumb, you only get to build on 60% of the land must change this if you want higher densities.
- Smart growth will only occur if you increase density and must be in the urban areas to make fiscal sense.
- New homeowners are continually expected to pay a disproportionate amount of fees for land use improvements.

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