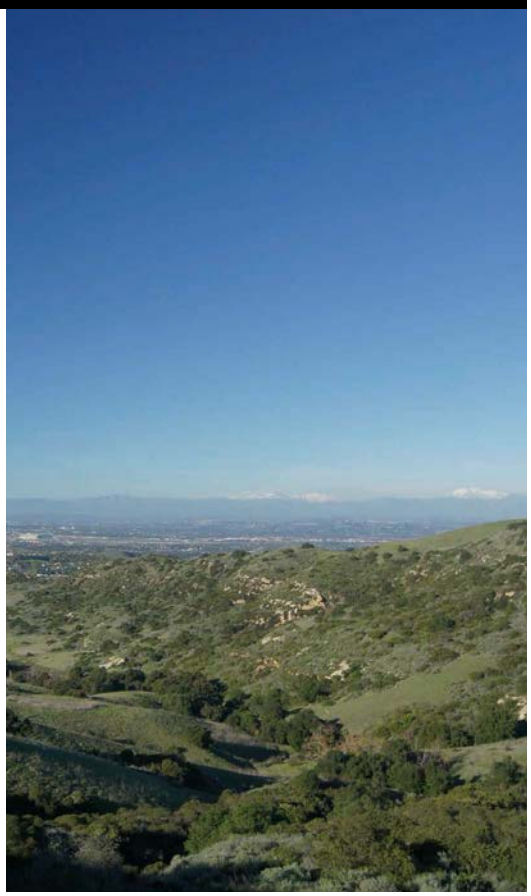
The General Plan Resource Directory:

Creating Sustainable Communities in Orange County



Friends of Harbors, Beaches, and Parks

May 2011

Friends of Harbors, Beaches, and Parks

Friends of Harbor Beaches, and Parks (FHBP) is a non-profit organization founded in 1997. FHBP's mission is "to promote, protect, and enhance the harbors, beaches, parks, trails, open spaces, natural preserves, and historic sites in Orange County."

Since 2000, FHBP has united conservation and community voices throughout Orange County through its Green Vision Project. Currently more than 80 organizations support the effort to increase the funding for parks, water quality, and open spaces in Orange County. One of the first tasks of the Coalition was to map conservation target lands. Known as the Green Vision Map, this map lays out the knowledge and efforts of the Coalition to preserve important landscapes.

The next major accomplish of the Coalition was negotiating a comprehensive mitigation program. OCTA's Renewed Measure M includes approximately $243.5 million (in 2005 dollars) or 5% of the freeway program to mitigate habitat impacts from freeway projects. The transportation sales tax measure was approved by a supermajority of voters in 2006. The measure included funds to acquire, restore, and manage lands. This landscape level approach, with streamlined permitting, is a departure from the earlier piecemeal or project-by-project approach. With this funding, important acquisitions have begun to fill in the gaps in conservation in the County.

In these challenging economic times, other approaches are necessary and we embarked on an effort to include policy language in planning documents that can provide a more sustainable and conservation-oriented future for the County and its 34 cities. Many cities hope to become more sustainable, but need assistance in creating good policy language. This Directory was written to provide that assistance particularly in support of complying with AB 32 – the Global Warming Solutions Act and SB 375 – legislation ties land use, transportation, and housing together to reduce vehicle miles traveled.

To Order This Resource Directory

The General Plan Resource Directory can be ordered from Friends of Harbors, Beaches, and Parks at: *www.FHBP.org*.

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Acronyms

AB 32	Assemby Bill 32
APS	Alternative Planning Strategy
Cal Fire	California Department of Forestry and Fire Prevention
CAP	Climate Action Plan
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
DWR	California Department of Water Resources
EIR	Environmental Impact Report
EOC	Environmental Oversight Committee
IPCC	Intergovernmental Panel on Climate Change
FBC	Form-Based Codes
FRAP	Fire and Resource Assessment Program
GHG	Greenhouse Gases
GTAC	General Plan Technical Advisory Committee
HCD	California Department of Housing and Community Development
HCP	Habitat Conservation Plan
LAFCO	Local Agency Formation Commission
LEED	Leadership in Energy and Environmental Design
LOS	Level of Service
m	meter
maf	million acre feet
MPO	Metropolitan Planning Organization
MWD	Metropolitan Water District
MWDOC	Municipal Water District of Orange County
NCCP	Natural Community Conservation Planning (or Plan)
OC SCS	Orange County Sustainable Communities Strategy
OCCOG	Orange County Council of Governments
OCTA	Orange County Transportation Authority
OPR	Office of Planning and Research
ppm	parts per million
PUD	Planned Unit Development
RHNA	Regional Housing Needs Assessment
RTAC	Regional Targets Advisory Committee
RTP	Regional Transportation Plan
SB 375	Senate Bill 375
SB 97	Senate Bill 97
SCAG	Southern California Association of Governments
SCS	Sustainable Communities Strategy
SOI	Sphere of Influence
SRA	State Responsibility Area
USGBC	United States Green Building Council
VMT	Vehicle Miles Travelled
WUI	Wildland-Urban Interface
YLWD	Yorba Linda Water District

Introduction

Chapter 1

Properly integrating land use and transportation requires a clear vision and policy framework developed through active citizen participation.

– Whit Blanton, AICP
From "Integrating Land Use & Transportation"

Land use planning has historically determined the short and long term use of the land by taking into consideration social, economic, movement, and environmental factors. In fact, land use now plays a critical role in achieving AB 32 emissions reduction goals.[1] Planners have the complex role of working within the constraints of existing and vested[2] uses, reviewing proposals for near-term projects, and projecting future needs of a community. All of this requires communicating with key decision makers and staff, landowners, businesses, and the public-at-large to propose policies and implement procedures to achieve the community-wide vision. This is no small feat. Planners must link together all of the various factors associated with developing or redeveloping a community—from schools to transportation, industrial sites to sewer lines, natural lands to residential areas—while at the same time obeying the various state and local laws that govern land use planning.

State law in California puts the majority of decisions concerning plans, policies, and projects in the hands of the elected officials—on our City Councils and Boards of Supervisors. While effective plans seek to address the needs of all stakeholders, elected officials often feel pressure from various sectors of the community to revise proposed plans or development decisions during the last stage of the process. This means that public participation is critical from the beginning to the end. This Resource Directory provides an introduction to some of California's key planning laws and pressing planning issues to make it easier for you to have an impact on the planning process.

In the last few years, land use planning has advanced to the forefront of discussions in California since it must focus heavily on policies related to the health of our environment and our communities. According to the U.S. Department of Labor, planning jobs are expected to increase 19% by 2018—faster

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1 Vision California. "Charting Our Future: Statewide Scenarios Report." Retrieved 27 Apr 2011, from the Vision California website: *http://www.visioncalifornia.org/reports.php*.

2 A vested right generally prevents the government from prohibiting construction in accordance with the terms of a permit the government has issued. (*Avco Community Developers, Inc. v. South Coast Regional Com.* (1976) 17 Cal.3d 785, 791-799 [132 Cal.Rptr. 386, 553 P.2d 546] ("Avco").) A landowner may obtain a vested right by (1) performing substantial work and incurring substantial liabilities in good faith reliance upon a permit issued by the government (Avco), (2) a development agreement (Government Code §65864 et seq.), (3) a vesting tentative subdivision map (Government Code §66498.1 et seq.), or (4) a local ordinance. Vested rights are no greater than those specifically granted by the permit itself. (*Santa Monica Pines, Ltd. v. Rent Control Board* (1984) 35 Cal.3d 858, 866 [201 Cal.Rptr. 593, 679 P.2d 27].)

than the average for all occupations.[3] In California, laws mandate that local planning and developments address climate change and sustainable development, bringing ever more attention to the need for good planning. Orange County and its cities have an opportunity under these new laws to reduce carbon emissions by implementing innovative land use policies.

Setting the Stage

A transportation system more than a century old set the stage for how Orange County developed. Interestingly, competition is what Orange County was built on—competition, that is, between Southern Pacific Railroad and Santa Fe Railroad. Southern Pacific held the monopoly on rail lines as far back as 1875 with its Los Angeles to Anaheim track, until Santa Fe Railroad created a rail line over the Cajon Pass and into the Inland Empire.[4] This flurry of rail activity significantly dropped ticket prices and increased development and growth throughout the region, ultimately leading to creation of the County of Orange in 1889.[5]

It was these railways, coupled with new highways, that became the focal point of this developing county during its first 50 years. A new state highway built in 1914-15, that ran from San Juan Capistrano to La Habra, allowed communities to grow on each side of the highway. The paving of Pacific Coast Highway also encouraged development along the coast.[6]

In just a few decades Orange County went from being among the highest producing agricultural counties in the state and nation, to being out of the nation's top 10 producing counties.[7] Though originally founded on farming and later expanding to oil extraction, remnants of the "old" rural Orange County were quickly replaced as new cities were formed ("incorporated" in planning jargon) across the County.

By the mid-1950s "Orange County's farms were being replaced by tract housing faster than any other community in the United States."[8] Reaching its first million residents in 1963, Orange County now boasts 34 cities and 3.01 million residents.[9] Designated as the second most densely populated county in the state, and sixth in the nation,[10] OC has seen variety in its developments, though most cities were formed as a result of access to and location of transportation corridors.

The assortment of development schemes, including "new towns" in the County's unincorporated areas, as seen in Orange County's formative years, were also witnessed across California. This led to development of a range of planning and environmental protection laws designed to require disclosure of the consequences of our decisions and to provide substantive protection for significant environmental resources (see Figure 1).

While the goal of these statewide legislative efforts was to help ensure that poorly planned (sprawling) development would not be repeated in the future, the laws have not had that result. Only where residents and elected officials concerned about the future of

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3 Bureau of Labor Statistics. Occupational Outlook Handbook 2010-2011 Edition. Section: Urban and Regional Planners. Washington DC: GPO, 2010.

4 Dodge, Richard. "The Fallbrook Line." Dispatcher (10 Apr 1958, Issue 17). Retrieved 13 Apr 2011, as cited on the San Diego Rail Museum website: *http://www.sdrm.org/history/cs/calsouth.html*.

5 County of Orange. "A Brief History of Orange County." Retrieved 13 Apr 2011, from the Orange County Clerk-Recorder website: *http://www.ocgov.com/vgnfiles/ocgov/Clerk-Recorder/Docs/Archives/history_of_orange_county.pdf*.

6 County of Orange. "A Brief History of Orange County."

7 University of Virginia Library. "Historical Census Browser." Retrieved 8 Feb 2011, from the University of Virginia, Geospatial and Statistical Data Center website: *http://fisher.lib.virginia.edu/collections/*.

8 County of Orange. "A Brief History of Orange County." 3.

9 United States Census Bureau. "American Fact Finder." Retrieved 13 Apr 2011, from the Census Bureau website: *http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=DEC_10_PL_GCTPL2.ST05&prodType=table*.

10 United States Census Bureau. "American Fact Finder."

their community have taken the laws to heart and worked to ensure effective compliance with the legal requirements have we seen development of the kind of communities that measure up to our state's standard of excellence. As the current economy begins to recover and communities take stock of how best to build on their existing assets, it is an excellent time for the County (and each of its cities) to consider how to make sound public investments and planning decisions to become a statewide leader in sustainable development.

Milestones in California Planning Law

1907	First Subdivision Map Act enacted.
1915	Cities authorized to create planning commissions.
1917	Initial zoning law enacted.
1927	Cities and counties authorized to prepare master plans (General Plans).
1929	Adoption of master plans made mandatory for those cities and counties establishing planning commissions (based largely on the 1928 U.S. Department of Commerce Model Standard City Planning Enabling Act). Subdivision Map Act revised enabling local governments to require dedication of improvements.
1937	All cities and counties required to adopt master plans. Cities and counties authorized to prepare "precise plans" (similar to specific plans of today) to implement the master plan.
1953	Planning law recodified into Government Code §65000, et seq.
1955	Land use and circulation elements required in the General Plan.
1965	Planning and Zoning Law reorganized. Cities and counties authorized to prepare "specific plans."
1967	Housing elements required in the General Plan (effective July 1, 1969).
1970	Conservation and open space elements required in the General Plan.
1971	Safety, seismic safety, noise, and scenic highway elements required in the General Plan. Zoning and subdivision approvals required to be consistent with the adopted General Plan.
1973	OPR issues first *General Plan Guidelines*.
1974	Subdivision Map Act recodified from the Business and Professions Code into the State Planning and Zoning Law within the Government Code.
1975	Legislature clarifies statute on General Plans' internal consistency.
1980	Detailed content standards and adoption procedures added to the housing element requirement. Appeals court says public works must be consistent with General Plans (*Friends of B Street*).
1982	Appeals court says land use and circulation elements must correlate (*Twaine Harte*).
1984	Planning statutes substantially revised, seismic safety and scenic highways elements dropped as required elements, seismic safety merged with safety element.
1990	California Supreme Court says zoning in conflict with the General Plan invalid (*Lesher v. Walnut Creek*).
2001	Legislature requires *General Plan Guidelines* to include environmental justice.

This summary does not include other major planning and land use statutes that have been important in shaping local planning, such as the California Environmental Quality Act, the Williamson Act, the California Coastal Act, the Cortese-Knox-Hertzberg Local Government Reorganization Act.

Figure 1. Milestones in California Planning Law.

Reprinted with permission from the Office of Planning and Research (OPR). "General Plan Guidelines." October 2003. Retrieved 13 Apr 2011, from the Office of Planning and Research website: *http://www.opr.ca.gov/planning/publications/General_Plan_Guidelines_2003.pdf*. 9.

General Plans

Chapter 2

This is not about planning. This is not about architecture. This is about vision.

— Rick Cole
City Manager, Ventura, CA
From "The Planning Report"

Since passage of statewide zoning legislation in 1917, the State has recognized the importance of planning for a community's future. Today, the centerpiece of local government planning is the General Plan. Each city and county must adopt a General Plan "for the physical development of the county or city."[11] Simply put, a General Plan is the long-term "blueprint" of what, where, and how the jurisdiction envisions the community will grow. It must address needed capacity for roads, sewers, water lines, park acreage, and residential density, among other factors. Each plan expresses the community's land use, circulation, environmental, economic, and social goals, policies, objectives, and actions. Courts have called the General Plan the "constitution for future development."[12] Just as the U.S. Constitution's guarantees of free speech and other fundamental rights govern all other federal and state laws, most city and county planning and infrastructure decisions must be consistent with the General Plan.

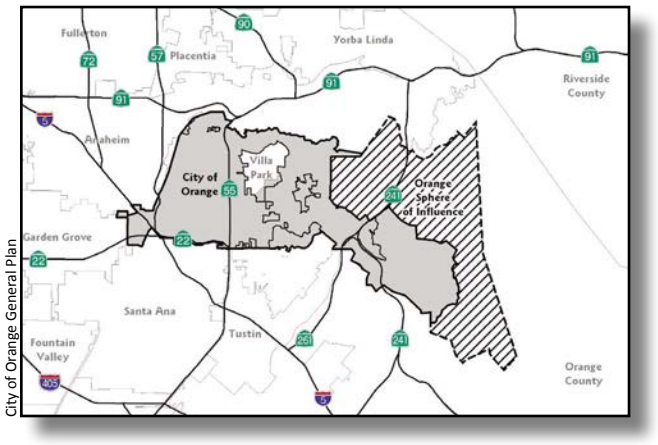


Figure 2. An example of the City of Orange's planning area, including its city limits and Sphere of Influence.

Source City of Orange. Orange General Plan. (March 2010.)

General Plans include current city limits and should include land outside the city boundary that bears relation to the overall planning area. Although the plan cannot be enforced outside the city limits, the city's policies for lands outside its boundaries can provide important information to the county and adjoining cities about the city's policy preferences for land use in those areas.

[11] Government Code §65300.

[12] Office of Planning and Research. "General Plan Guidelines." 8.

Understanding Spheres of Influence

Areas outside the city proper but likely to be incorporated into that city or places that are within the city's service area are known as the "Sphere of Influence." This Sphere of Influence (SOI) should be the starting point for designating the planning area of the General Plan. In some scenarios multi-jurisdictional planning may occur with neighboring cities to ensure efficient planning of utilities or to protect open space.[13] All changes to a city's boundaries or SOI must be approved by a regional agency known as the Local Agency Formation Commission (LAFCO).[14] LAFCO works to ensure that public agency boundaries make sense from a regional perspective.

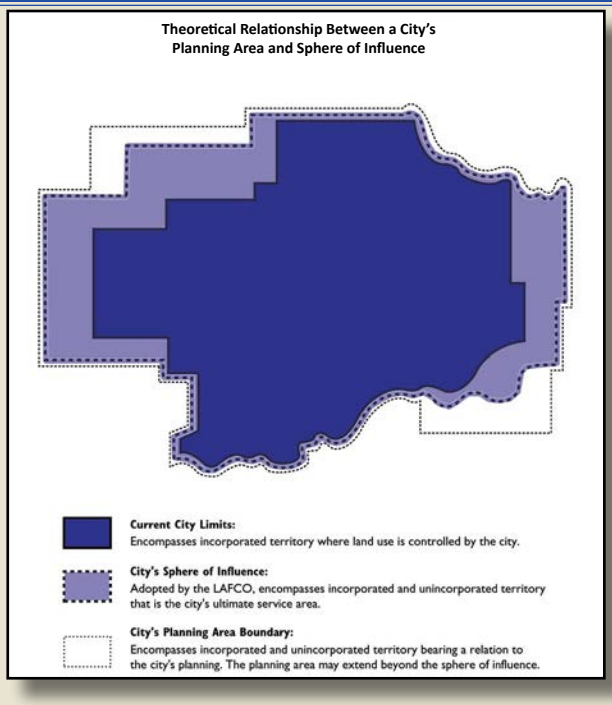


Figure 3. The relationship between a city's planning area and its Sphere of Influence.

Reprinted with permission from the Office of Planning and Research. "General Plan Guidelines." 11.

[13] Office of Planning and Research. "General Plan Guidelines."

[14] Government Code §56000, et seq.

General plans outline "goals" and "objectives" for the planning area that are then backed up with specific policies. Though sometimes these terms are used interchangeably, goals are broad and unquantifiable, while objectives are specific and quantifiable. Once the goals and objectives are set, policies are created, and implementation measures are developed. Policies help decision makers guide the development in the jurisdiction and are executed through implementation measures.

In reviewing or drafting General Plan policies it is important to consider the difference between mandatory requirements and encouraged direction. Strong policies with explicit direction use words like "shall" and "require," while other policies with more flexibility use words like "should," "encourage," and "may." Using the flexible policy language implies interest in the policy, but no real commitment to it or its enforcement. Flexible policy language does not carry the force of law. According to the General Plan Guidelines developed by the comprehensive state planning agency, the Office of Planning and Research (OPR), "It is better to adopt no policy than to adopt a policy with no backbone."[15] In addition, for a policy to be counted towards "mitigating of a plan's impacts," it must be expressed as mandatory.

[15] Office of Planning and Research. "General Plan Guidelines." 15.

How To Create Strong Policies

Goal:	Increase energy efficiency.
Objective:	Increase energy efficiency by 25% by 2012.
Weak Policy:	Encourage residential developments to install energy efficient appliances.
Strong Policy:	Require new residential construction to be designed to use 25% less energy than the average energy consumption of existing residential uses.
Implementation:	• Document existing average energy consumption. • Provide training to architects and contractors on energy efficient design principles. • Collaborate with other cities in the region with similar policies. • Provide rebates to developments that utilize Energy Star® appliances.

Maps and/or diagrams of the development policy are sometimes used to visually describe a policy. It is important to maintain internal consistency among diagrams and policies within the General Plan. In other words, policies/diagrams must not contradict one another. However, where a contradiction does arise, written policies and text govern over maps and diagrams. In addition, it is important to ensure that all the General Plan's policies are consistent with one another. A plan may not provide that one policy must take precedence over another.

Understanding Specific Plans

Specific Plans are considered a tool for implementing the General Plan, but are not a part of the General Plan. Instead, Specific Plans are a mixture of policy statements and development regulations[16] adopted to address a single development. They may be adopted as a resolution or as an ordinance. Specific Plans must be consistent with all aspects of the General Plan and its policies.[17] Both zoning and Specific Plans also must align with the General Plan.

[16] Government Code §65450, et seq.

[17] Office of Planning and Research. "General Plan Guidelines."

General Plans serve as the basis upon which decision makers plan for and ultimately approve or disapprove development proposals. For example, planners must determine which areas should be open space, transit oriented districts, or mixed use. And, what should the intensity of the residential areas be? Are there areas that are "stable and thriving" and should not be subject to land use change in the General Plan update? For example, should the stable residential neighborhoods be low density (single family residences with a single unit per acre such as seen in the City of Yorba Linda) or mixed use high density (commercial development with townhomes, apartments, and condominiums averaging 82 units per acre such as seen in the City of Brea's new downtown)[18]? Other planning and development decisions made based on the General Plan include: how many acres of open space per 1,000 residents, whether the work force housing is located near mass transit, and if the community will have pedestrian- and bike-friendly transportation opportunities.

By law a General Plan must, at a minimum, contain the following sections or elements:

1. Land Use
2. Open Space
3. Conservation
4. Housing
5. Circulation
6. Noise
7. Safety

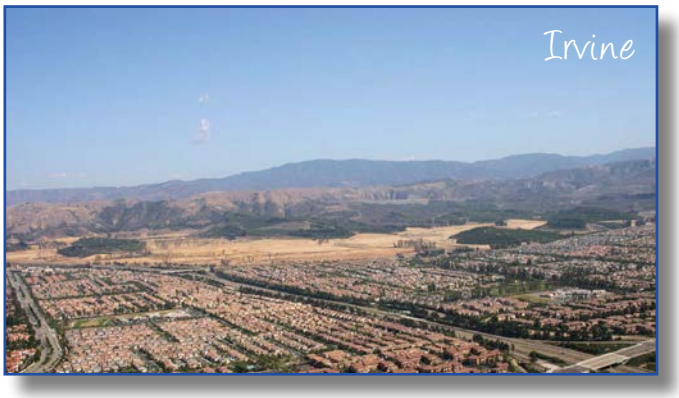
[18] D. Crabtree (personal communication, 13 Apr 2011) stated this number excludes Brea's horizontal mixed use area.

These may have different names, but these subjects must be addressed in the General Plan.

Land Use Element

The Land Use Element outlines three important features of land use in the city or county: type, intensity, and geography. First, this element describes the types of development that can occur in the planning area, such as residential, commercial, industrial, agriculture, or open space. Second, it also outlines the permitted density (e.g., units per acre) or intensity (e.g., square footage of commercial or industrial property per acre) for each development type. Finally, it explains the geography of development types—where the schools are located, what areas of the city are industrial, etc.[19] The Land Use Element also must address areas that are subject to flooding and the effect of the plan on military bases in the area.

The Land Use Element should include a Land Use map or diagram laying out the distribution of the various land uses. As discussed further below, it is critical that the Land Use Element be correlated with the Circulation Element. Allowing housing far from mass transit corridors, for example, encourages vehicle trips and contributes to gridlock for everyone. This is especially significant in light of the contribution cars make to our nation's dependence on foreign oil and to climate change.



Open Space Element

From habitat lands to recreation facilities, the Open Space Element focuses on long-term preservation of natural lands, agricultural lands, and access to high intensity (sports) parks. Basic goals outlined in this element include acreage of parkland per 1,000 residents, types of recreational facilities (e.g., ball fields vs. basketball courts, golf courses vs. tot lots), and calls out any open space preservation priorities. The Open Space Element must include an action plan consisting of specific programs which the City Council or Board of Supervisors intends to pursue in implementing the plan.[20]

Conservation Element

The Conservation Element describes all of the various natural resources that can be protected, extracted, and used. These include renewable and non-renewable resources like water, oil, gas, timber, and soil. This element delineates the location, amount, type, and methods to protect, extract, or use the resources. In light of severe constraints on water supplies in California, the Conservation Element is required to include detailed information on water

[19] Office of Planning and Research. "General Plan Guidelines."

[20] Government Code §65564.

Melanie Schlotterbeck

supplies and how those supplies will be sufficient to serve the water demands of the uses included in the Land Use Element. In addition, recent legislation considering the likely effects of climate change requires careful consideration of flood risks throughout the jurisdiction.[21]

Housing Element

While the state grants local governments broad policy discretion in developing most General Plan elements, the Housing Element is required to meet very specific state requirements including to "identify adequate sites for housing. . . for the existing and projected needs of all economic segments of the community."[22] Housing includes not only typical single-family for-sale housing but also rental housing, factory-built housing, mobile homes, and emergency shelters. The Housing Element must include detailed information on the social and economic needs of the community, employment centers, and socio-economic status. The state requires this element to be revised every five years with updates to the demographic data, policies, and implementing actions. However, recent state legislation has extended the planning period to eight years beginning after June 30, 2014 (the date the current planning period ends, please see the discussion of SB 375 in Chapter 6 for more information).

Unlike all other General Plan elements, the Housing Element must be submitted to the state for review and certification. Local governments that do not have a certified Housing Element may be denied state grant funds and, in some cases, required to approve projects with a small affordable housing component even if the project is not otherwise consistent with the General Plan.[23] The California Department of Housing and Community Development (HCD) is responsible for certifying Housing Elements.[24]

A major factor in the composition of the Housing Element is the Regional Housing Needs Assessment (RHNA) mandated by state law.[25] The RHNA quantifies two housing figures: existing need and future need. The RHNA includes an allocation for each community to accommodate housing needs across the spectrum, specifically very low, low, moderate, and above moderate income households. The Census helps determine whether current housing stock is meeting the needs of the residents of the locality and the region.[26] The Southern California Association of Governments (SCAG), which oversees planning in its six Southern California counties and in their constituent cities, has created local RHNA assessments for the entire SCAG region.

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21 Government Code §65302(d).

22 Government Code §65583.

23 Government Code §65589.5.

24 Southern California Association of Governments. "Regional Housing Needs Assessment." Retrieved 13 Apr 2011, from the SCAG website: *http://www.scag.ca.gov/Housing/rhna/index.htm*.

25 Southern California Association of Governments. "Regional Housing Needs Assessment."

26 Southern California Association of Governments. "Housing Southern California – Factsheet." February 2008.

Final Regional Housing Needs Allocation Plan

JANUARY 1, 2006 - JUNE 30, 2014

City	# and % of very low income households	# and % of low income households	# and % of moderate income households	# and % of above moderate income households	Total # of units and percentage
Aliso Viejo	208 (22.6%)	165 (18.0%)	179 (19.4%)	367 (42.5%)	919 (100%)
Anaheim	1,971 (20.8%)	1,618 (17.0%)	1,874 (19.7%)	4,035 (42.5%)	9,498 (100%)
Brea	441 (21.5%)	356 (17.4%)	404 (19.7%)	847 (41.4%)	2,048 (100%)
Buena Park	142 (21.0%)	116 (17.1%)	132 (19.5%)	286 (42.3%)	677 (100%)
Costa Mesa	353 (21.0)	289 (17.2%)	330 (19.6%)	710 (42.2%)	1,682 (100%)
Cypress	98 (21.7%)	79 (17.5%)	89 (19.7%)	185 (41.0%)	450 (100%)
Dana Point	15 (22.1%)	12 (17.6%)	13 (19.1%)	28 (41.2%)	69 (100%)
Fountain Valley	103 (22.1%)	83 (17.7%)	92 (19.7%)	189 (40.5%)	466 (100%)
Fullerton	398 (20.9%)	329 (17.2%)	376 (19.7%)	806 (42.2%)	1,910 (100%)
Garden Grove	116 (20.7%)	96 (17.1%)	110 (19.6%)	238 (42.5%)	560 (100%)
Huntington Beach	454 (21.7%)	369 (17.6%)	414 (19.8%)	855 (40.9%)	2,092 (100%)
Irvine	7,735 (21.7%)	6,408 (18.0%)	7,139 (20.0%)	14,378 (40.3%)	35,660 (100%)
La Habra	53 (20.7%)	44 (17.2%)	50 (19.5%)	110 (42.6%)	258 (100%)
La Palma	4 (25.0%)	3 (18.8%)	3 (18.8%)	6 (37.5%)	16 (100%)
Laguna Beach	7 (23.3%)	5 (16.7%)	6 (20.0%)	12 (40.0%)	30 (100%)
Laguna Hills	2 (25.0%)	1 (12.5%)	2 (25.0%)	3 (37.5%)	8 (100%)
Laguna Niguel	80 (22.4%)	64 (17.9%)	71 (19.9%)	141 (39.8%)	355 (100%)
Laguna Woods	25 (18.7%)	23 (17.2%)	27 (20.1%)	60 (44.0%)	135 (100%)
Lake Forest	6 (20.7%)	5 (17.2%)	6 (20.7)	12 (41.4%)	29 (100%)
Los Alamitos	9 (22.0%)	7 (17.1%)	8 (19.5%)	17 (41.5%)	41 (100%)
Mission Viejo	33 (22.6%)	26 (17.8%)	29 (19.9%)	59 (39.7%)	147 (100%)
Newport Beach	392 (22%)	322 (18.0%)	362 (20.3%)	708 (39.7%)	1,784 (100%)
Orange	1,086 (21.4%)	887 (17.5%)	1,004 (19.8%)	2,102 (41.4%)	5,079 (100%)
Placentia	21 (21.6%)	17 (17.5%)	19 (19.6%)	40 (41.2%)	98 (100%)
Rancho Santa Margarita	28 (22.8%)	22 (17.9%)	24 (19.5%)	49 (39.8%)	124 (100%)
San Clemente	126 (21.6%)	103 (17.6%)	116 (19.9%)	239 (40.9%)	584 (100%)
San Juan Capistrano	229 (21.6%)	188 (17.7%)	210 (19.8%)	436 (41.0%)	1,062 (100%)
Santa Ana	694 (20.5%)	574 (16.9%)	665 (19.6%)	1,461 (43.0%)	3,393 (100%)
Seal Beach	11 (19.3%)	10 (17.5%)	12 (21.1%)	24 (42.1%)	57 (100%)
Stanton	108 (19.9%)	93 (17.1%)	107 (19.7%)	236 (43.4%)	544 (100%)
Tustin	512 (21.5%)	410 (17.2%)	468 (19.6%)	991 (41.6%)	2,380 (100%)
Villa Park	3 (27.3%)	2 (18.2%)	2 (18.2%)	4 (36.4%)	11 (100%)
Westminster	30 (20.5%)	25 (17.1%)	29 (19.9%)	63 (42.5%)	147 (100%)
Yorba Linda	460 (22.6%)	371 (18.2%)	412 (20.2%)	796 (39.0%)	2,039 (100%)
Unincorporated OC	1,777 (22.3%)	1,445 (18.1%)	1,597 (20.0%)	3,159 (39.6%)	7,978 (100%)

Figure 4. Final Regional Housing Needs Allocation Plan for Orange County.

Reprinted from the Southern California Association of Governments. "Final Regional Housing Needs Allocation Plan." Retrieved 13 Apr 2011, from the SCAG website: *http://www.scag.ca.gov/housing/pdfs/rhna/RHNA_FinalAllocationPlan071207.pdf*.

Melanie Schlotterbeck

HCD commended the Southern California area for its adoption of the RHNA plan to allocate 699,398 housing units in the six-county area.[27] The current RHNA assessment covers January 1, 2006 to June 30, 2014. SCAG pays for the RHNA assessment and then seeks reimbursement from the state.

Circulation Element

While most typically associated with planning for streets, roads, freeways, and public transit, the Circulation Element also considers all other infrastructure, including: pedestrian and bicycle circulation, airports, and public utilities (e.g., circulating water, sewage, gas, electricity). Central to the Circulation Element is the requirement that it be correlated with the Land Use Element.[28] General Plans calling for development without a feasible plan to accommodate the need for movement of people, goods, energy, water, and other resources are not valid.[29]

The Circulation Element often discusses traffic "Level of Service" or "LOS." A LOS is scored by traffic engineers and ranges from a Level A to a Level F. Level A is the best score, where traffic moves at or above the posted speed limit and commuters can move in between lanes with ease; whereas Level F roads generally have more demand than capacity and traffic is consistently at a crawl. Historically, General Plans have sought to ensure Levels of Service of D or even C or better. Increasingly, however, planners and traffic engineers are concluding that Level of Service based policies can lead to larger roads and intersections that then can lead to high infrastructure costs, deterioration of community character, without commensurate public benefit.[30]

The State recently revised its California Environmental Quality Act (CEQA) Guidelines to suggest that communities shift their focus from LOS to measures of effectiveness that take into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.[31]

For substantive Circulation Element amendments adopted after January 1, 2011, the Circulation Element must be amended to include a plan for a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways including bicyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, users of public transportation, and seniors.[32]

Noise Element

The Noise Element addresses the appropriate levels of noise allowed in certain land use types. For example, a mining operation next to a residential area

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27 Department of Housing and Community Development. Letter to SCAG. (7 Sep 2007). Retrieved 13 Apr 2011 from the SCAG website: *http://www.scag.ca.gov/Housing/pdfs/rhna/RHNA_HCDAdoption090707.pdf*.

28 Government Code §65302(b)(1).

29 *Concerned Citizens of Calaveras County v. Board of Supervisors* (1985) 166 Cal.App.3d 90.

30 Milam, Richard. Transportation Impact Analysis Gets a Failing Grade When It Comes to Climate Change and Smart Growth. Retrieved 13 Apr 2011 from Office of Planning and Research website: *http://opr.ca.gov/sch/pdfs/LOS_Climate_Change_Smart_Growth.pdf*.

31 California Natural Resources Agency. CEQA Guidelines, Appendix G, §XVI.

32 Government Code §65302(b)(2).

would likely have sound impacts that make those two uses next to each other incompatible. This element helps determine where the most appropriate places are for "noisy" and quiet land use types.

Safety Element

Jurisdictions often write about public services (e.g., emergency, police, fire) in the Safety Element, but other information about geologic conditions, earthquake faults, and wildfire hazards are also covered in this element. As climate change increases (see discussion at page 32 below) it is particularly important that communities ensure the safety element includes policies to ensure that the land uses authorized by the Land Use Element are safe from wildfire risks. It is also important that new uses in the jurisdiction do not increase risk to existing uses either by creating a greater risk of wildfire or reducing the ability of local firefighting forces to respond to a wildfire. Governor Jerry Brown's December 2010 budget proposal would shift current Cal Fire responsibilities for fire protection and medical emergency in wildland areas to local government. Such a shift should ensure local governments pay close attention to project requests in wildland areas.[33]

Other Elements

Depending on the circumstances of the jurisdiction, other elements, which are optional, can be included in the General Plan. Typical optional elements can include: growth management, water, and community design. More recently, elements responding to new legislation and expanded awareness of environmental conditions have been incorporated including: Climate Action Plans, sustainability, energy, and air quality elements. As with the other elements, each of these discusses the goals, objectives, policies, and implementation actions needed to reach the community's vision and need to be internally consistent with one another.

Aligning All the Elements

As John Muir stated, "When we try to pick out anything by itself, we find it hitched to everything else in the universe." The same is true for General Plan elements—the best outcome of planning is achieved when all of the elements are aligned, in other words internally consistent. In addition to demonstrating good planning, this is a requirement of the state planning law.

General Plan Updates, Review, and Amendments

General Plan Updates

Orange County and its cities all have adopted General Plans. Once adopted, however, a General Plan must be regularly updated to account for changing circumstances in the community, reflect changes in state laws, and in some cases to reflect changing priorities and visions of the community. For example, some communities with a General Plan focused on rapid residential development may find that the pace of development is not sustainable in the long term and may wish to shift the General Plan to focus on infill and improving the quality of life in the existing community.

As noted earlier, SB 375 increases the period for the Housing Element update from five years to eight years and requires that the local government actually zone the land needed for housing.[34] In 2011, General Plan updates for cities ranged from $350,000 to $1.5 million, while updates for counties cost more (one to four million dollars), with factors like size, population, scope of the update, etc. playing into the final cost.[35] Cities may feel this "unfunded mandate" to update the General Plan is unfair, but these costs represent a relatively modest cost for rational land use decision making and cities should take advantage of the opportunity to create cleaner and healthier communities that updated General Plans can produce.

Recently, the U.S. Department of Energy began offering financial assistance to cities that created and implemented strategies for reducing fossil fuel emissions, reducing total energy use, and improving energy efficiency in the building sector. These types of grants help offset the cost of an update.[36]

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[33] Wildfire Today. "Cal Fire's Budget Cuts Could Mean a 41% Reduction in Efficiency of Engine Crews." Retrieved 13 Apr 2011, from the Wildfire Today website: *http://wildfiretoday.com/2011/01/18/calfires-budget-cuts-could-mean-a-41-reduction-in-efficiency-of-engine-crews/*.

[34] Senate Bill 375. 30.

[35] A. Zelinka (personal communication, 23 Feb 2011) stated these figures were provided by members of the California Planning Roundtable.

[36] United States Department of Energy. "RFP for Energy Efficiency and Conservation Block Grant Program." March 2009.

The Status of Orange County and City General Plans
AS OF MARCH 2011

City	Date Adopted	Date Updated	Housing Element Updated	Years Covered in Housing Element
Aliso Viejo	April 2004		2004	2000 - 2005
Anaheim	May 2004		2009	2006 - 2014
Brea	August 2003		2008	2008 - 2014
Buena Park	November 1994	2010	2010	2008 - 2014
Costa Mesa	June 2002	2009 (Air Quality)	2008	2008 - 2014
Cypress	June 2005	2000	2008	2008 - 2014
Dana Point	July 1991	2000 (Circulation) 1995 (Land Use & Safety)	2009	2006 - 2014
Fountain Valley	March 1995	2008 (Circulation) 2009 (Housing)	2009	2008 - 2014
Fullerton	September 1996	in progress	2010	2006 - 2014
Garden Grove	2008	2008	2008	
Huntington Beach	1996	2002 (Growth Mgt) 2008 (Coastal)	2008	2008 - 2014
Irvine	March 1999	March 2009 (Supplement 7)	1998	2000 - 2005
La Habra	July 1990	in progress	in progress	
La Palma	March 1990	October 2009	2009	2008 - 2014
Laguna Beach	February 1992	2009 (Land Use)	2008 (draft)	2006 - 2014
Laguna Hills	June 1994	July 2009	2009	2008 - 2014
Laguna Niguel	1992	2000 (Housing)	in progress	2008 - 2014
Laguna Woods	October 2002	2010 (Land Use) 2009 (Housing) 2007 (Open Space)	2008	2006 - 2014
Lake Forest	June 1994	2010 (Land Use, Housing, and Recreation & Resources) 2008 (Circulation)	2010	2008 - 2014
Los Alamitos	1991	2010	2008 (draft)	2006 - 2014
Mission Viejo	October 1990	2009 (Housing, Public Safety, Noise) 2006 (Circulation) 2004 (Growth Mgt) 2003 (Public Facilities) 2002 (Economic Develop-ment)	2009	2008 - 2014
Newport Beach	July 2006	2010 (Housing)	2010	1998 - 2008
Orange	2010	2010	2010	2006 - 2014
Placentia	2003	in progress	in progress	2006 - 2014
Rancho Santa Margarita	December 2002	2007 (Land Use Map)	2009 (draft)	2006 - 2014
San Clemente	May 1993	in progress	2009 (draft)	2006 - 2014
San Juan Capistrano	December 1999	2001 (Housing)	2010	2008 - 2014
Santa Ana	June 2005	2009 (Airport Environs and Housing)	2009	2006 - 2014
Seal Beach	December 2003	2003	in progress	
Stanton	2008	2008	2008 (draft)	
Tustin	February 2002	2008	2008	2008 - 2014
Villa Park	June 2010	2010	2010	2006 - 2014
Westminster	1996	2008 (Housing)	2008	
Yorba Linda	1993	2000 (Housing)	in progress	2008 - 2014
County of Orange	December 2008	2005	2008	2008 - 2014

Figure 5. Status of General Plans in Orange County, including the County and all 34 cities.

Information gathered from the Office of Planning and Research. "The [2011] California Planners' Book of Lists" and individual jurisdictional websites.

The process for updating a General Plan ideally involves community visioning workshops and setting up a General Plan Technical Advisory Committee (GTAC) to provide early and ongoing input to the process. Prior to the approval of the updated General Plan, the jurisdiction's Planning Commission holds a public hearing and then approves, by majority vote, the updated document. Similarly, the legislative body, such as the City Council, also holds public hearings before adopting the General Plan. Before the adoption, the entity must notify the public at least 10 days in advance of the decision.[37]

The City or County must notice the hearing in a display ad at least 1/8 page in size in a newspaper of general circulation at least 10 days before the hearing. This assumes that the General Plan changes will affect at least 1,000 property owners.[38] Additionally, all elements associated with the Local Coastal Plan must be reviewed and approved by the California Coastal Commission. Examples of other state agencies that must be notified of the update of the General Plan are shown in the figure below.

HCD must receive notification 90 days prior to a Housing Element's adoption[39] or 60 days prior to the approval of an amendment.

AGENCY: REFERRALS TO STATE AGENCIES	ELEMENT: Land Use	Circulation	Housing	Conservatoin	Open Space	Noise	Safety
California Geological Survey							X
Coastal Commission	All elements related to the Local Coastal Plan						
Department of Forestry & Fire Protection							X_1
Department of Housing & Community Development			X				
Mining & Geology Board	X_2			X_2	X_2		
Office of Emergency Services							X
Resources Agency					X		

1 Applies only to counties with State Responsibility Areas for wildland fire
2 Submit all elements containing mineral resource management policies

Figure 6. General Plan Referral Matrix.

Reprinted with permission from Office of Planning and Research. "General Plan Guidelines." 44.

Environmental Review of General Plans

General Plans are subject to CEQA because of their statewide, regional, and area-wide significance.[40] By way of background, CEQA requires public agencies be informed of the environmental impacts of proposed projects and that feasible mitigation measures be adopted prior to project approval. General Plan and CEQA documentation can occur concurrently to expedite the process and approval of both documents.

The reason General Plans must be reviewed for environmental impacts is because the policies set forth in each individual element may have direct, significant impacts on the existing environment. This includes but is not limited to agricultural resources, climate change, air and water quality, and endangered or threatened species and their habitat.

As a part of CEQA and General Plan updates, the public is encouraged to participate and provide meaningful input. Through CEQA, the public can hold their elected officials accountable for decisions that may change their quality of life.

More information on CEQA and the environmental review process is available in Chapter 3.

General Plan Amendments

By law, the legislative body of the county or city can amend any mandatory element of the General Plan only four times a year. However, they can consider multiple amendments each time. Typically, requests for amendments are made by private development interests and the costs of the amendment are passed on to the developer.

More than one change in any or all sections is allowed to occur in each of the four amendment meetings.[41] Therefore jurisdictions tend to make several changes in the amendment meeting that covers several projects. Both the General Plan itself and any amendment(s) are subject to referendums and initiatives.

Sometimes a community will amend the General Plan to allow more housing than originally envisioned in consideration for a public benefit. For example, a developer may pay for widened roads, a developed park or a golf course and in return receive an increase in the intensity of the development. However, it has been criticized as "contract zoning." Plus, if many cities follow this haphazard practice of allowing more housing than what is foreseen in the General Plan, it can lead to gridlock of surrounding communities (within and beyond its SOI), since the roads were sized based on a lower level of development, among other factors.

37 Government Code §65353, §65355, and §65090.

38 Government Code §65350 et seq.

39 Government Code §65585(b).

40 CEQA Guidelines §15206.

41 Government Code §65358(b).

Zoning vs. Form-Based Codes

Zoning

Zoning is one of the primary tools cities and counties use to implement land use policy consistent within its General Plans. Simply put, zoning is the way governments control what goes where in a city. Zoning consists of a written zoning ordinance and a zoning map together that specify the location of development and the type of development. New York became the first city to create a zoning code in 1916. Back in the day, New York's code focused on use, height, and area districts. Historically, zoning advocated homeownership and limited the sights and sounds of industrial and commercial activities to other specified areas.[42]

Conventional zoning evolved into what has been termed "cookie-cutter" houses. The next evolution of land use control was the Planned Unit Development (PUD). Unlike previous iterations of zoning, PUD allowed for inclusion of certain amenities, like grocery stores and parks and even higher density housing. Yet, the PUD, or as some Orange County cities have called them "Master Planned Communities," are still auto-oriented.

Zoning focuses on minute details of development and segregates the land uses. While this was useful at the turn of the last century when zoning was first adopted, planners today are questioning whether it is still the most effective tool to protect public welfare. For example, using traditional zoning, cities have separate areas designated for residential, commercial, and industrial uses. This can make it extremely difficult to build better, more family-friendly communities because it would limit what can be built in a residential neighborhood to just houses. This means that the grocery store, doctor's office, and cleaners are all located away from the housing—which puts more of an emphasis on vehicle use.

Form-Based Codes

As an alternative to traditional zoning, a newer form of land use control has been created. Many planners are urging cities to consider form-based codes (FBC). "Form-based codes foster predictable built results and a high quality public realm by using physical form (rather than separation of uses) as the organizing principle for the code."[43]

These codes, which consist of texts with inherent three dimensional graphics, tie everything together, from building scales to types of streets and blocks; from community areas to the front of buildings. This new form of land use control helps create community character and achieve a community vision.

FBC also supports building re-use. Instead of limiting the types of activities included or allowed in a certain building, there is more flexibility and creativity. For example, if a store shop goes vacant, the building could remain and fill a different use. Form comes first—allowing the community to decide exactly what it wants and how it will look and feel. "Form-based codes emphasize the appearance and qualities of the public realm, the places created by buildings."[44]

According to the Form-Based Codes Institute, a FBC commonly includes the following elements:

- **"Regulating Plan**. A plan or map of the regulated area designating the locations where different building form standards apply, based on clear community intentions regarding the physical character of the area being code[d].
- **Public Space Standards**. Specifications for the elements within the public realm (e.g., sidewalks, travel lanes, on-street parking, street trees, street furniture).
- **Building Form Standards**. Regulations controlling the configuration, features, and functions of buildings that define and shape the public realm.
- **Administration**. A clearly defined application and project review process.
- **Definitions**. A glossary to ensure the precise use of technical terms.

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[42] Rhees, Suzanne. "Zoning = Sprawl, Coding = Urbanism? A Dissenting View" (Vol. 8, No. 3, 2010). Retrieved 1 Nov 2010, from the American Planning Association's Practicing Planner website: *http://www.planning.org/practicingplanner/default.htm*.

[43] Form-Based Codes Institute. "What Are Form-Based Codes?" Retrieved 1 Nov 2010 from the Form-Based Codes Institute website: *http://www.formbasedcodes.org/what-are-form-based-codes*.

[44] Local Government Commission. "Form-Based Codes: Implementing Smart Growth." Retrieved 1 Nov 2010 from the Local Government Commission website: *http://www.lgc.org/freepub/community_design/factsheets/form_based_codes.html.* 1.

Form-based codes also sometimes include:

- **Architectural Standards**. Regulations controlling external architectural materials and quality.
- **Landscaping Standards**. Regulations controlling landscape design and plant materials on private property as they impact public spaces (e.g., regulations about parking lot screening and shading, maintaining sight lines, insuring unobstructed pedestrian movements).
- **Signage Standards**. Regulations controlling allowable signage sizes, materials, illumination, and placement.
- **Environmental Resource Standards**. Regulations controlling issues such as storm water drainage and infiltration, development on slopes, tree protection, solar access, etc.
- **Annotation**. Text and illustrations explaining the intentions of specific code provisions."[45]

[45] Form-Based Codes Institute. "What Are Form-Based Codes?"

Form Based Codes

FBC are particularly effective because:

- A Picture Tells the Story
- Information is Easy to Find
- Great for Mixing Uses
- Better, Faster, Cheaper Process

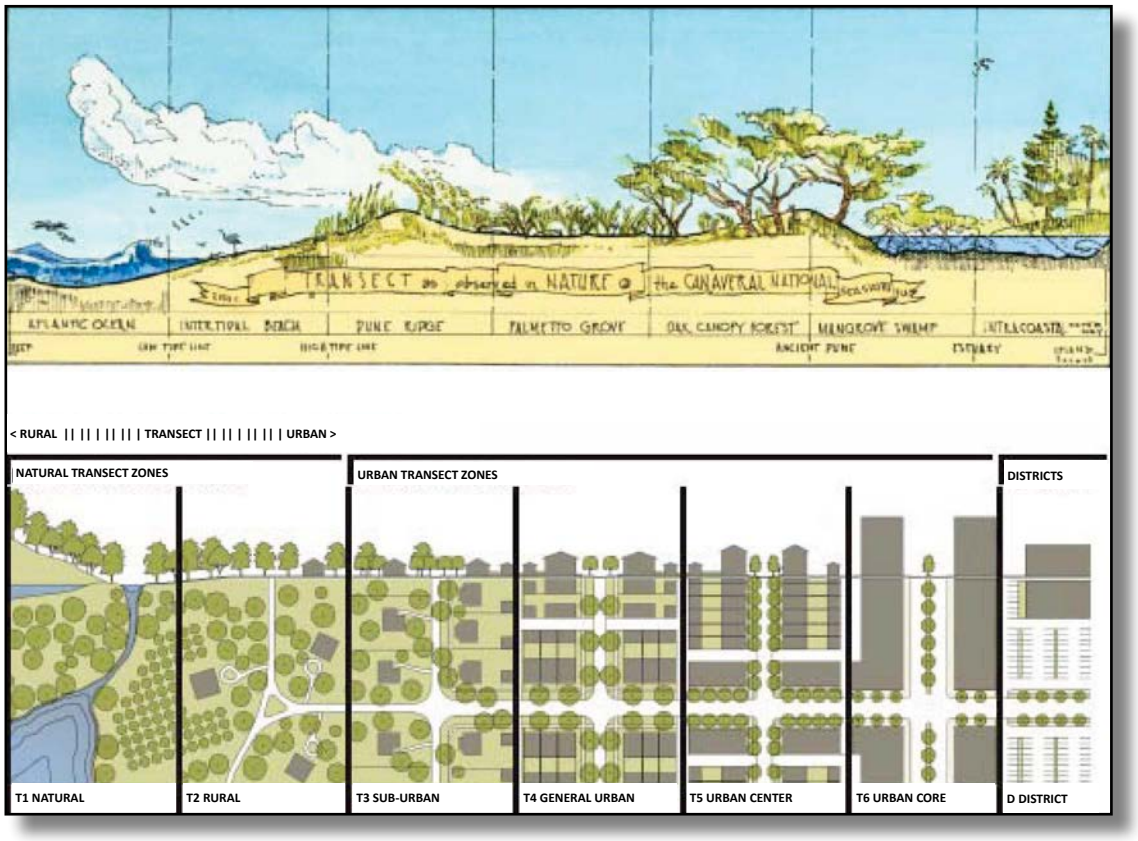

Figure 7. The Model for Transect for American Towns.

"The model Transect for American towns is divided into six Transect zones or T-zones: Natural (T1), Rural (T2), Sub-urban (T3), General Urban (T4), Urban Center (T5), and Urban Core (T6), together with a Special District (SD) designation for areas with specialized purposes (e.g., heavy industrial, transportation, entertainment, or university districts, among other possibilities). Each T-zone is given a number: higher numbers designate progressively more urban zones, and lower numbers designate more rural zones."

Reprinted with permission from the City of Livermore, extracted from the the City's Development Code.

CEQA

Chapter 3

You can never plan for the future by the past.
– Edmund Burke (1729-1797)
Anglo-Irish Statesman

Adopted in 1970 by the California Legislature and signed into law by then-Governor Ronald Reagan, the California Environmental Quality Act is the Golden State's premiere environmental law. Known as CEQA (pronounced see-quah) this law seeks to:

1. Inform governmental decision makers and the public about the potential, significant environmental effects of proposed activities.

2. Identify ways that environmental damage can be avoided or significantly reduced.

3. Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.

4. Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.[46]

Opportunities for public and agency comments, feedback, and review are a key part of CEQA.

Author's Note: This section offers a simplified version of the CEQA process. Many other resources are available that provide detailed information about the CEQA process, Guidelines, and Statutes as well as case law. Recommendations for additional information are listed in the Appendix of this Directory.

A Project Triggers The Need For CEQA Review

The Public Resources Code states: A "project" means an activity which may cause either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and which is any of the following:

1. An activity directly undertaken by any public agency (including the adoption and updating of its General Plan).

2. An activity undertaken by a person which is supported, in whole or in part, through contracts, grants, subsidies, loans, or other forms of assistance from one or more public agencies.

[46] CEQA Guidelines, §15002.

Examples of Projects Subject to CEQA

Public and private projects include, but are not limited to:

- Creating a new residential development
- Expanding an existing freeway
- Building an industrial center
- Constructing a community center
- Developing a Resource Management Plan for an open space reserve

3. An activity that involves the issuance to a person of a lease, permit, license, certificate, or other entitlement for use by one or more public agencies."[47]

If the activity is deemed not to be a project, no further action is required through CEQA.

Some projects are considered exempt from CEQA's analysis. These include either "Statutorily Exempt" or "Categorically Exempt" projects.

Olympic games,[48] family day care homes,[49] projects located outside of California,[50] and street re-striping[51] are several of the Statutorily Exempt projects. For a more complete list of Statutorily Exempt projects see the CEQA Guidelines Article 18, §15260-15285.

Categorically Exempt projects are projects that generally have no possibility of causing significant harm to the environment. Information collection,[52] loans,[53] land acquisitions for preservation purposes,[54] designation of wilderness areas,[55] and infill developments[56] are several of the Categorically Exempt projects. Agencies may file a Notice of Exemption for projects deemed exempt, but are not required to do so. Categorically Exempt projects can be found in the CEQA Guidelines Article 19, §15300-15333. Note that a project that is ordinarily exempt may not qualify for the exemption if special circumstances mean that it may have significant adverse environmental effects. For example, while single-family homes are generally considered to be Categorically Exempt, the exemption has been found to not apply when the home is to be developed in sensitive habitat.[57]

Agency Participation in CEQA

CEQA has established a system of roles for the various interested agencies or jurisdictions to assist with completing or commenting on the environmental review process or documents. There is only one leading body, called a Lead Agency, that has the responsibility for carrying out the environmental review for and ultimately approving or denying the project.[58] Other interested public entities, called Responsible Agencies, rely on the Lead Agency to carry out the project, but they may be requested to provide feedback on the project.[59] Finally, those entrusted with protecting our natural resources that are held in trust for the people of California are called Trustee Agencies.[60]

CEQA's Three Step Process

Agencies follow a three step process to determine what, if any, environmental review is needed for a particular activity. These steps include:

1. Determining if the activity is a project and therefore subject to CEQA. If not a project, the Lead Agency may file a Notice of Exemption.[61]

47 Public Resources Code §21065.

48 CEQA Guidelines §15272.

49 CEQA Guidelines §15274.

50 CEQA Guidelines §15277.

51 CEQA Guidelines §15282(j).

52 CEQA Guidelines §15306.

53 CEQA Guidelines §15310.

54 CEQA Guidelines §15313.

55 CEQA Guidelines §15318.

56 CEQA Guidelines §15332.

57 *Spawn v. County of Marin*, (2004) (23 Cal. Rptr. 3d 321).

58 CEQA Guidelines §15367.

59 CEQA Guidelines §15381.

60 CEQA Guidelines §15386.

61 If the agency files a notice of exemption, litigation challenging the exemption must generally be filed within 35 days of the notice; in the absence of the notice, litigation may be filed up to 180 days after the decision. Public Resources Code §21167.

2. Conducting an Initial Study to see if the project will have a significant effect on the environment. If there is no significant effect, the Lead Agency files a Negative Declaration.

3. Preparing an Environmental Impact Report.[62]

Environmental Documentation

There are several types of environmental documents used to meet CEQA requirements. The first is a Negative Declaration, which is, as it sounds, a statement of no significant harm to the environment.[63] In some cases where there is determined to be an adverse effect on the environment a Mitigated Negative Declaration may be filed as long as the project is changed to reduce or eliminate those significant impacts.[64] Finally, the most extensive type of environmental documentation is known as an Environmental Impact Report (EIR).[65] An EIR describes the project, its impacts, and its mitigation measures.

Environmental Impact Reports

The CEQA Guidelines (§15151) state, "an EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of environmental consequences." This is the fundamental purpose of CEQA: to inform. To ensure consistency and full disclosure, a draft EIR must include specific information within the document. Such information includes:

- A Table of Contents
- A Summary
- The Project Description
- The Environmental Setting
- The Environmental Impacts
- The Significant Environmental Impacts
- The Mitigation Measures
- Project Alternatives
- Limitations of Environmental Impacts
- Effects Not Found to Be Significant
- Persons or Organizations Consulted
- The Cumulative Impacts
- Economic and Social Effects[66]

There are several specific types of EIRs that will not be discussed in this Resource Directory, but for informational purposes these include: program, master, tiered, recirculated, and supplemental EIRs.

The Public's Role

In addition to providing agencies with the opportunity to comment on EIRs, the public is given a chance to make meaningful comments on the documents as well. Normally the public is given 30 days, and, with large and complex projects, sometimes up to 90 days, to review and comment on an EIR.[67] Agencies make the documents and appendices accessible to the public in a variety of ways: posting copies online, at the Lead Agency's office, in public libraries, and sometimes on compact disc.[68]

Often times Lead Agencies also hold public hearings on the project and EIR. This also provides an opportunity to submit input on the document, the findings, and offer alternatives for consideration.

CEQA is a tool by which decision makers, agencies, and the public are informed about the potential significant environmental impacts of a proposed activity. CEQA also suggests impact avoidance, necessitates mitigation, and takes public comments/ testimony before making the decision to approve/deny a project.

62 CEQA Guidelines §15002(k).

63 Public Resources Code §21080(c).

64 Public Resources Code §21080(c)(2).

65 Public Resources Code §21080(d).

66 CEQA Guidelines §§15122-15131.

67 Public Resources Code §21091.

68 CEQA Guidelines §15087.

Climate Change Primer

Chapter 4

It wasn't the forest that ignited the houses, but the homes that ignited the forest. In fact, the size of fires is directly linked to the density and flammability of buildings along the wildland-urban interface.

– Rick Halsey

From Fire, Chaparral, and Survival in Southern California

Contrary to media reports that try to spin hard scientific facts into wishful thinking, there is little debate that Earth's climate is changing due to a compounding of the greenhouse effect. The International Panel on Climate Change (IPCC) is a rotating group of scientists from around the world who come from an array of disciplines. This panel has demonstrated in a multitude of ways that the climate is changing and Earth's physical and biological systems are reacting.

In its 2007 Summary for Policy Makers, the IPCC states,

> "The global atmospheric concentration of carbon dioxide has increased from a pre-industrial value of about 280 parts per million (ppm) to 379 ppm in 2005. The atmospheric concentration of carbon dioxide in 2005 exceeds by far the natural range over the last 650,000 years (180-300 ppm) as determined from ice cores."[69]

In fact, 11 of the last 12 years are the warmest on record, since 1850, in terms of global surface temperature.[70]

Scientists believe that action must be taken in the next 10 years to significantly reduce greenhouse gases.[71] James Hansen, of America's National Aeronautics and Space Administration states,

> "If humanity wishes to preserve a planet similar to that on which civilization developed and to which life on Earth is adapted, paleoclimate evidence, and ongoing climate change suggest that carbon dioxide will need to be reduced from its current 385 ppm to at most 350 ppm."[72]

The IPCC has confidence in its computer modeling, which uses super computers and is based on fundamental laws on the conservation of mass, energy, and momentum, coupled with direct observations.

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69 Intergovernmental Panel on Climate Change. "Summary for Policymakers." In: Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.)]. (Cambridge: Cambridge University Press, 2007). 2.

70 Intergovernmental Panel on Climate Change. "Summary for Policymakers." 4.

71 Rowland, Dr. Sherwood. Presentation at the Annual Friends of the Newport Coast Meeting. 5 Dec 2007. Newport Beach, CA.

72 Hansen, James, et al. Target Atmospheric CO_2: Where Should Humanity Aim? (New York: Columbia University, 2008). 1.

Since the modeling began, it has provided a consistent, reliable, and unambiguous snapshot of how increasing greenhouse gases (GHGs) are impacting climate change worldwide.

The Greenhouse Effect – Natural vs. Human-caused

The sun emits energy in the form of light waves that go through Earth's atmosphere and warm the planet. Some of those light waves get absorbed into the land and seas, some bounce off the earth and leave our atmosphere. Other light waves get trapped in the atmosphere creating an invisible blanket that keeps our planet at the temperature that supports humans, plants, and animals. This is known as the natural greenhouse effect.

Earth's atmosphere is mostly made up of nitrogen (N), oxygen (O_2), and carbon dioxide (CO_2). CO_2 is a greenhouse gas, as are methane (CH_4), nitrous oxide (N_2O), and hydrofluorocarbons (HFC). The problem lies in that there are now too many of these heat-trapping gases (aka greenhouse gases) in Earth's atmosphere. Essentially, the naturally occurring greenhouse effect is being exacerbated by human activities. For example, our reliance on fossil fuels (i.e., coal, oil, natural gas) is one reason there is more carbon dioxide in the atmosphere since CO_2 is a by-product of the chemical reaction that occurs when fossil fuels are burned.

The top five major sectors contributing to carbon dioxide emissions from fossil fuel combustion include: transportation, electricity generation, industrial, residential, and commercial.[73] More carbon dioxide means more light waves are being trapped in the atmosphere that then produces a warmer climate—and a warmer climate means a changing planet.

Changes to Come

The IPCC anticipates an increase in the average temperature of Earth's near surface air and oceans by 10°F by the end of the century. Changes in our planet's temperature mean warmer land and seas, which will greatly influence our weather across the world. This in turn will influence natural and cultivated growing seasons thereby changing our wildlands and our farmlands.

A warmer climate also means less snowpack and fewer glaciers. Much like a floating ice cube in a glass of water will not make the glass overflow when the ice cube melts, melting sea glaciers will not make sea level rise. Rather, the melting of land-based glaciers, especially those covering Antarctica and Greenland, will cause sea level rise which will change our coastlines and submerge low lying communities.

Climate Change: California Impacts

California has the potential to be significantly impacted by climate change for several reasons. First, California with its 1,100 miles of coastline[74] is at serious risk when it comes to sea level rise. Second, California has just recovered from a multi-year statewide drought and the anticipated and available water supplies remain uncertain at best. Third, along with the rest of the nation, California will experience extreme weather patterns. Finally, much of California is facing significant and extended fire seasons, which have tremendous impact on both the natural environment and the developments nearby. In essence, we have planned all of our infrastructure (e.g., flood plains, water networks, transportation methods) on the climate being a certain way and now that climate baseline is changing.

Orange County also struggles with these same four impacts because it has 42 miles of coastline,[75] our water supply has been curtailed,[76] and the region is already experiencing both extreme weather events and more frequent devastating wildland fires.

Sea Level Rise

Over the last half century, California's coasts have had extensive development including residential areas, roads and highways, hospitals, power plants, and

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72 United States Environmental Protection Agency (EPA). U.S. Greenhouse Gas Inventory Report. (April 2009). Retrieved 15 Mar 2011, from the EPA website: *http://www.epa.gov/climatechange/emissions/usinventoryreport.html*.

74 California Climate Change Center. The Impacts of Sea Level Rise on the California Coast. Retrieved 10 Mar 2009, from the Pacific Institute website: *http://www.pacinst.org/reports/sea_level_rise/report.pdf*.

75 County of Orange. "Orange County 2009 Community Indicators Report." Retrieved 10 Mar 2009 from the County's News Room, Facts and Figures website: *http://www.ocgov.com/ocgov/Info%20OC/Facts%20&%20Figures/Community%20Indicators*.

76 Metropolitan Water District (MWD). "A Call to Save Water." Retrieved 13 Mar 2010, from the MWD website: *http://www.mwdh2o.com/mwdh2o/pages/yourwater/WaterAlert/*.

A Satellite View of California

other infrastructure. If GHG emissions continue at the existing rate, California's coastline will be reshaped.

A recent study shows that in 2008 nearly 32.6 million people lived in coastal counties in California,[77] the majority of which would be impacted by sea level rise, coastal erosion, and flooding.[78]

Though the sea level along California's coast has risen eight inches in the last century, estimates for the next 50 years include an increase of 16 inches. Forecasts for the next century include a sea level rise as high as 4.59 feet.[79]

Concerned scientists, researchers, state agencies, and non-profits are studying both climate change and sea level rise. In 1998, the Pacific Institute published a comprehensive study that estimated a 3.28 foot sea level rise, with a focused case study on the Bay Area. In San Francisco Bay alone, the threats to homes, infrastructure, and buildings in 1990 dollars topped $48 billion. Mitigation measures, like sea walls, needing implementation immediately to protect high-value real estate that would keep the Bay at bay would top $1 billion a year (again 1990 dollars). Yearly maintenance would require $100 million.[80] This is just one scenario facing one area of California—the California Climate Change Center is now looking statewide at potential impacts.

Funded by the California Energy Commission, the California Climate Change Center has been researching impacts to the Golden State since 1998. According to the Center's recent publication in 2009, Impacts of Sea Level Rise in California, the key findings included:

- "Under medium to medium-high greenhouse-gas emissions scenarios, mean sea level along the California coast is projected to rise from 1.0 to 1.4 meters (m) [3.28 to 4.59 feet] by the year 2100.
- A 1.4 m [4.59 foot] sea-level rise will put 480,000 people at risk of a 100-year flood event, given today's population. Populations in San Mateo and Orange Counties are especially vulnerable. In each, an estimated 110,000 people are at risk.
- A wide range of critical infrastructure, such as roads, hospitals, schools, emergency facilities, wastewater treatment plants, power plants, and more will also be at increased risk of inundation in a 100-year flood event.
- Vast areas of wetlands and other natural ecosystems are vulnerable to sea-level rise.
- Large sections of the Pacific coast . . . are highly susceptible to erosion. We estimate that a 1.4 m [4.59 feet] sea-level rise will accelerate erosion, resulting in a loss of 41 square miles of California's coast by 2100.
- Continued development in vulnerable areas will put additional areas at risk and raise protection costs."[81]

The Pacific Institute has compiled maps showing how populations, various infrastructure, and wetlands will be affected by a 1.4 m [4.59 feet] sea level rise. Those thematic maps can be seen on the next few pages.

Southern California beaches are vulnerable to two main challenges associated with climate change and sea level rise. First, already plagued with beach erosion issues from natural and human-induced causes,[82] the coast will face even more significant losses due to permanent beach inundation. The higher sea level will inundate prime beach real estate that tourists and residents enjoy recreationally. Second, the beaches will endure higher intensity storms that cause even more beach erosion, due to the higher and stronger tides.[83]

Though the risks of impacts from climate change are varied, Orange County is named as one of five counties that comprise 50% (or $17 billion) of the total property at risk.[84] "Decisions about the types and level

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77 U.S. Department of Commerce et al. Population Trends Along the Coastal United States 1980-2008. Retrieved 14 Mar 2010, from National Ocean Service webpage: *http://oceanservice.noaa.gov/programs/mb/pdfs/coastal_pop_trends_complete.pdf*.

78 California Climate Change Center. The Impacts of Sea Level Rise on the California Coast.

79 Department of Justice. "Climate Change Impacts in California." Retrieved 26 Oct 2009, from the California Attorney General's website: *http://www.ag.ca.gov/globalwarming/impact.php*.

80 Gleick, P. H., and E. P. Maurer. 1990. Assessing the Costs of Adapting to Sea-Level Rise: A Case Study of San Francisco Bay. Retrieved 14 Mar 2009 from the Pacific Institute's website: *www.pacinst.org/reports/sea_level_rise/*.

81 California Climate Change Center. The Impacts of Sea Level Rise on the California Coast. 16-18.

82 Department of Boating and Waterways. "Results from Coastal Sediment Management Workgroup Task 1." Retrieved 4 Nov 2009, from the Department of Boating and Waterways website: *http://www.dbw.ca.gov/CSMW/PDF/Results_From_CSMW_Task1.pdf*.

83 California Climate Change Center. Estimating the Potential Economic Impacts of Climate Change on Southern California Beaches. Retrieved 1 Apr 2009, from the California Energy Commission website: *http://www.energy.ca.gov/2009publications/CEC-500-2009-033/CEC-500-2009-033-D.PDF*.

84 California Climate Change Center. The Impacts of Sea Level Rise on the California Coast.

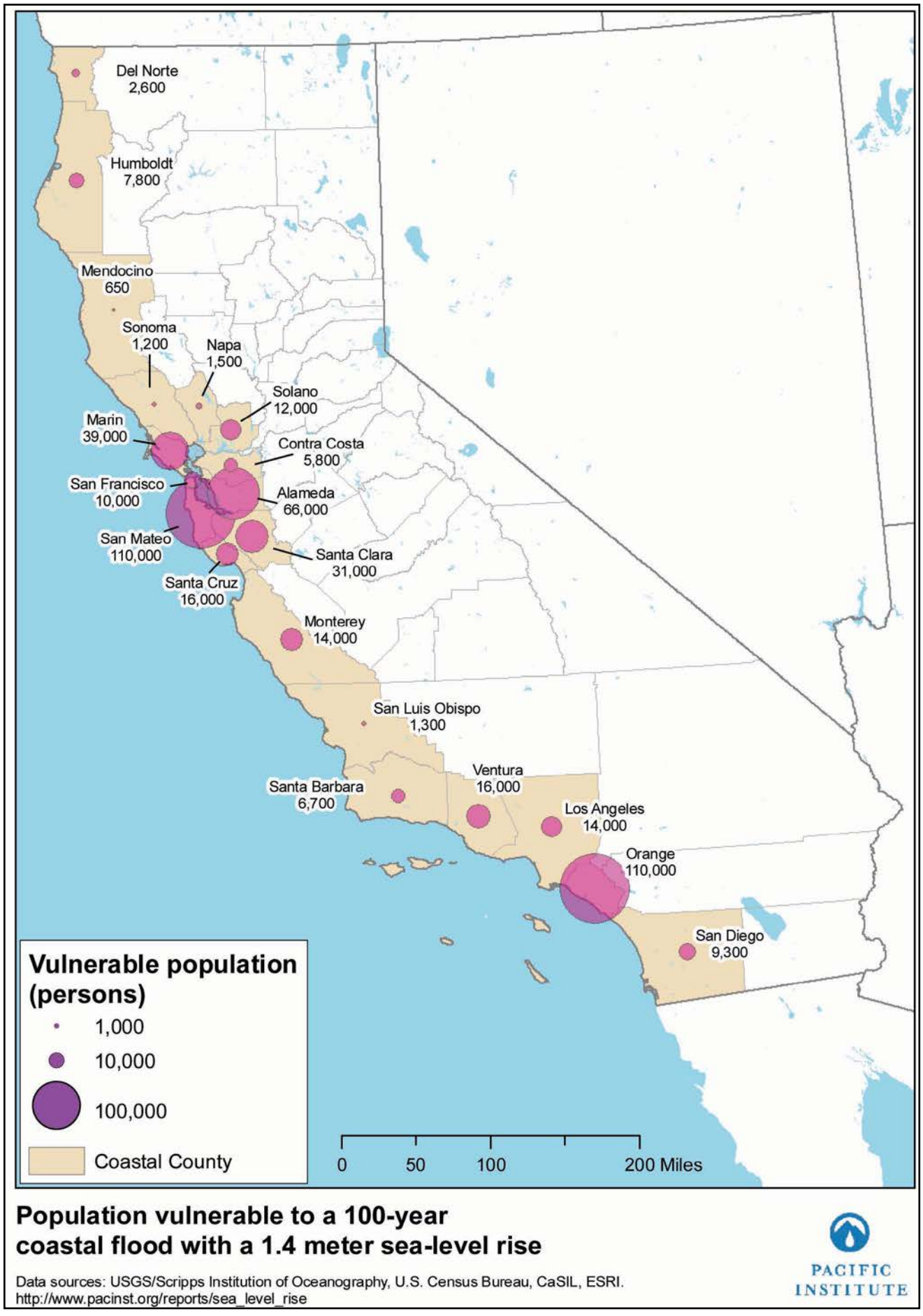

Figure 8. Population vulnerable to a 100 year coastal flood with a 1.4 meter sea-level rise.

Reprinted from the Pacific Institute, Sea Level Rise Thematic Maps.

Figure 9. Roadways vulnerable to a 100-year coastal flood with a 1.4 meter sea-level rise.

Reprinted from the Pacific Institute, Sea Level Rise Thematic Maps.

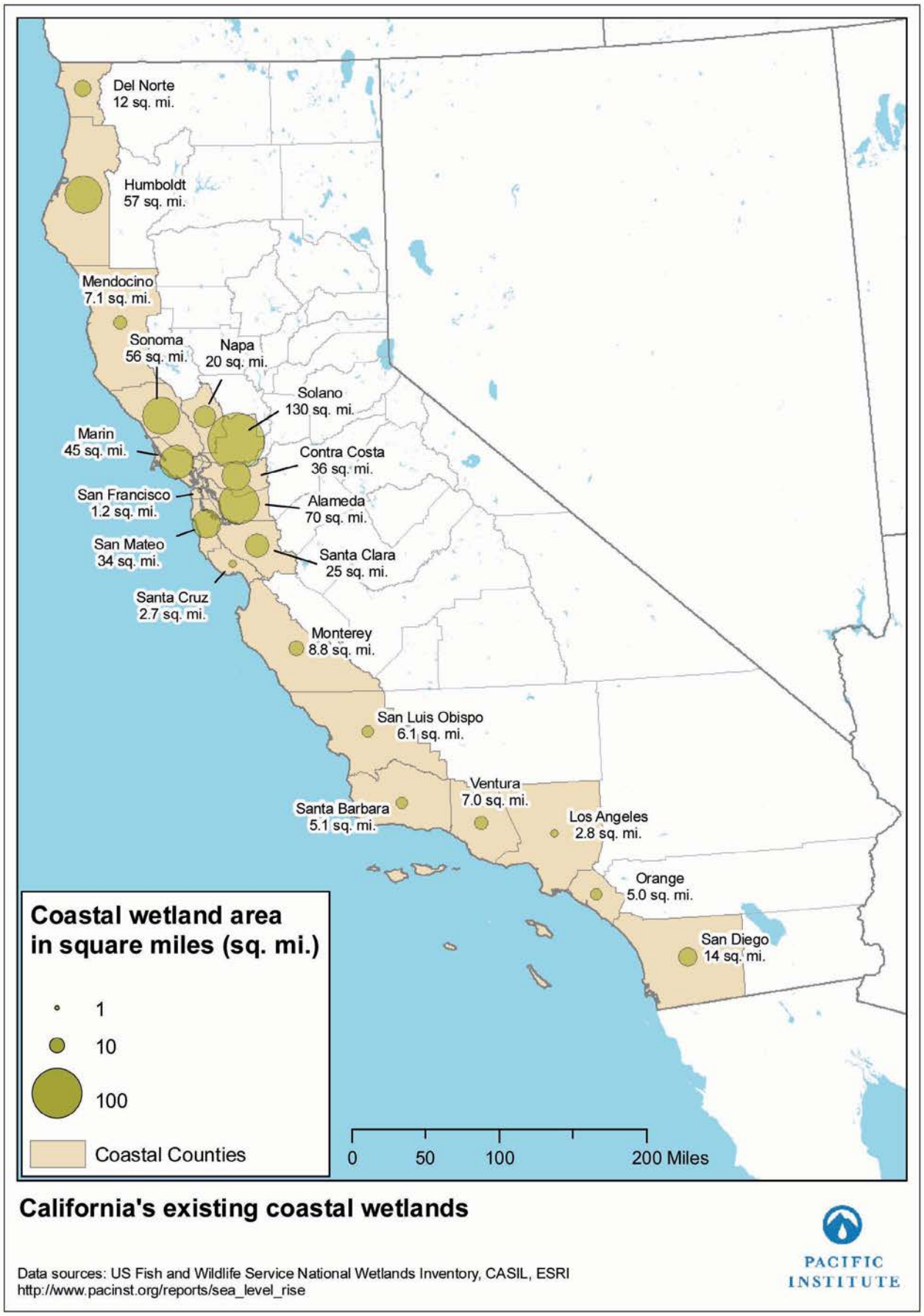

Figure 10. California's existing coastal wetlands.

Reprinted from the Pacific Institute, Sea Level Rise Thematic Maps.

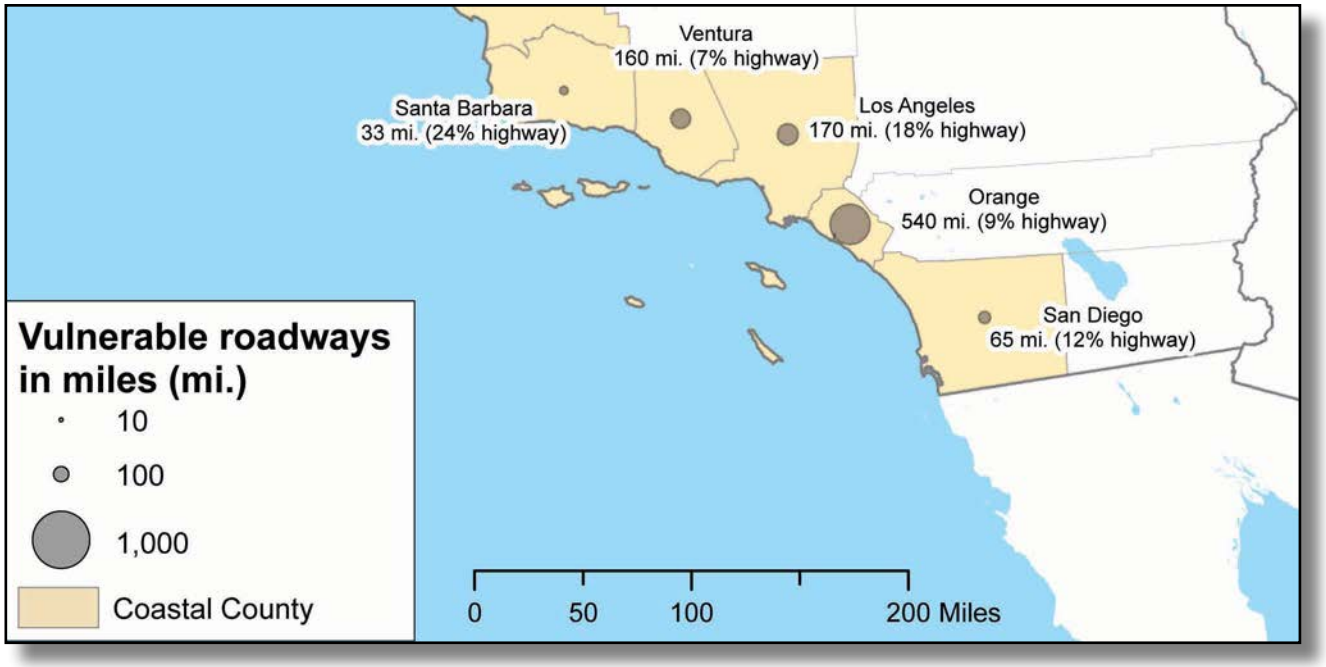

Figure 11. A close up view of the Southern California region and the miles of highways vulnerable to a 1.4 meter sea -level rise.

Reprinted from the Pacific Institute, Sea Level Rise Thematic Maps.

of protection to implement reflect the perception of the value of the threatened property, the cost of alternative measures, and political and societal factors."[85] Our decision makers will soon need to prioritize which coastal resources and infrastructure are worth the investment of protection and begin implementing mitigation strategies.

Useful maps are available on the Pacific Institute's website (*http://www.pacinst.org/reports/sea_level_rise/hazmaps.html*) to show impacts a 1.4 m [4.59 feet] sea level rise would have all along the California coast.

The Institute's Report makes specific recommendations for action—like beach nourishment, seawalls, breakwaters, and raising roadways and structures. Responding to the impacts of climate change will not come cheaply.

The image on the next page shows the extent of coastal flooding and erosion under a 1.4 m [4.59 feet] sea level rise on the Seal Beach Quadrangle covering Huntington Beach and Seal Beach. The Bolsa Chica wetlands and mesa are both under water, as is the Seal Beach Naval Weapons Station.

Decreased Rainfall and Water Availability

"Over the past century, the West (including California) warmed more than any other region in the United States, apart from Alaska."[86] With higher temperatures in California, snow levels will not be as abundant and snowpack will melt at a faster rate. This will lead to increased pressure on our existing, but diminished, water supply as Sierra snowpack accounts for 60% of Southern California's water supply.[87]

Water policy is already of great concern to Californians and their leaders. Research conducted by the California Climate Change Center indicates that our current water systems were not created to handle the impacts of climate change. Additionally, the research states that water managers expect to be able to respond with plenty of time to accommodate shifting water scenarios, but they are not anticipating variable water influxes or shortages and are not prepared for surprises.[88]

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85 Orange Coast Voice Newspaper. "Report: Sea Level Rise Will Change Life on California Coast." Retrieved 11 Mar 2009, as cited in the Pacific Institute's Press Release, on the Orange Coast Voice blog: *http://ocvoice.wordpress.com/2009/03/11/report-sea-level-rise-will-change-life-on-california-coast/.*

86 California Energy Commission. "Public Interest Energy Research Climate Change Program." Retrieved 12 Mar 2009 from the California Energy Commission website: *http://www.energy.ca.gov/2009publications/CEC-500-2009-092/CEC-500-2009-092.PDF*. 1.

87 Department of Justice. "Global Warming Impacts in California." Retrieved 26 Oct 2009 from the California Attorney General's website: *http://www.ag.ca.gov/globalwarming/impact.php*.

88 Gleick, P. H., and M. Kiparsky. 2009. Climate Change and California Water Resources: A Survey and Summary of the Literature (Second Edition). August 2005.

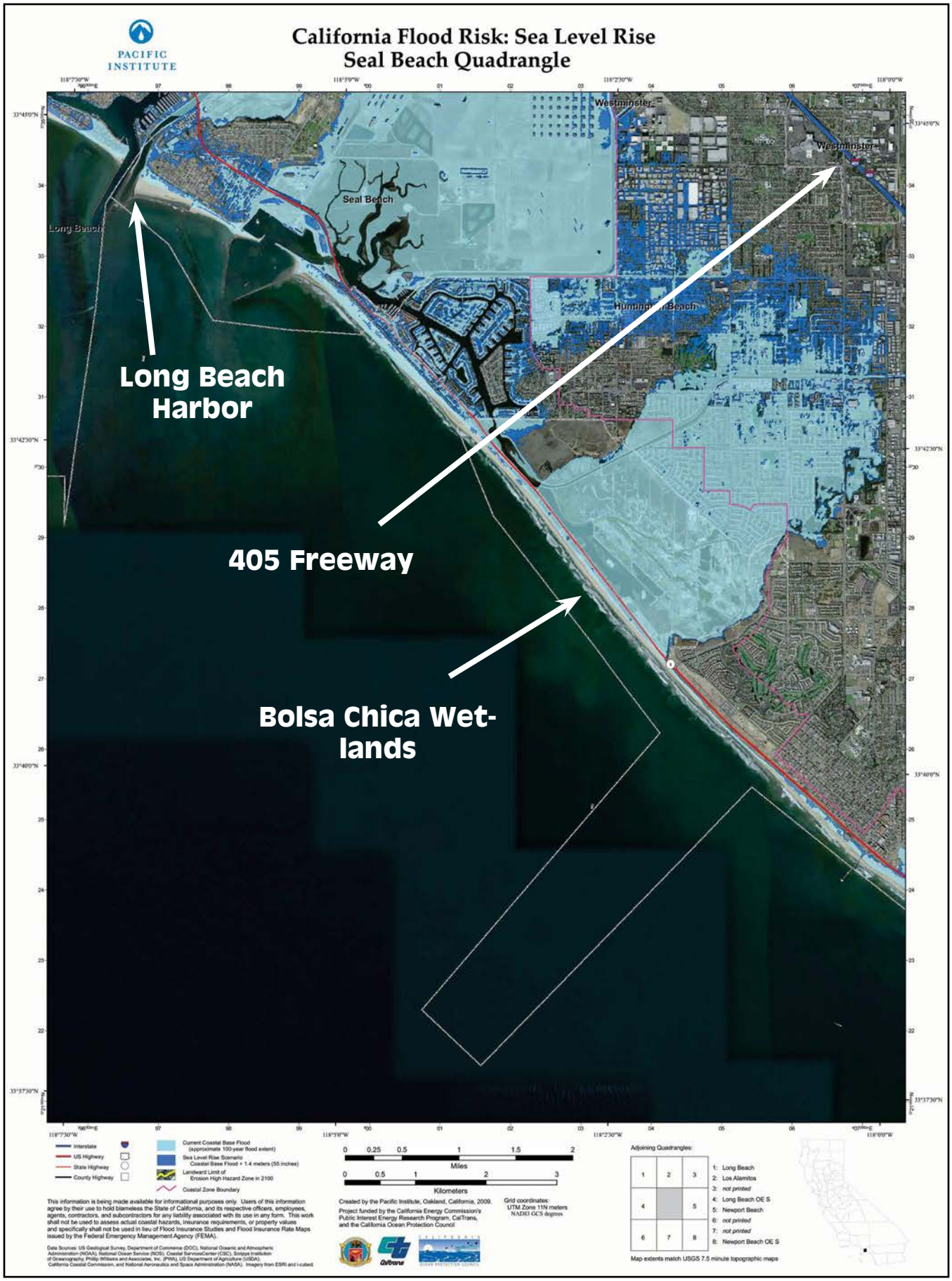

Figure 12. A local example, the Huntington Beach area, showing the extent of coastal flooding and erosion under a 1.4 meter sea-level rise.

Reprinted from the Pacific Institute, Hazard Maps (*http://www.pacinst.org/reports/sea_level_rise/hazmaps.html*).

According to the California Department of Water Resources (DWR), 2007-2009 marked the 12th driest years in the state's measured hydrologic record.[89] Rain and snow fall for 2007, 2008, and 2009 were well below average (63%, 72%, and 76% of average respectively).[90] To date, 2010-11 rainfall and snow accumulation was 147% of the average (or 68% for the water year—October 1st through September 30th).[91] But even so, as of May 2011, California's key reservoirs average 79% water capacity, some even dipping as low as 43%.[92]

The harsh reality of a prolonged drought spurred action at the state level—in February 2009, then Governor Schwarzenegger declared a statewide drought and called for immediate action to remedy the crisis. Even the Metropolitan Water District (MWD) stated that "Metropolitan's main sources of imported supplies remain restricted. The Colorado River is experiencing another dry year with overall precipitation about 75 percent of normal."[93]

In fact, MWD's network of reservoirs and groundwater basins has the potential to hold up to 5.3 million acre feet (maf) of water. In the recent peak year of 2006, reserves held 3.6 maf. By February 2009, the reserves had been depleted down to 1.7 maf of water.[94] Thus, in the last three years, MWD, its member agencies, and customers have used more than half the reserves during this most recent drought.[95]

Orange County normally averages 13.01 inches of rainfall per year, but recent records show 8.5 inches (2007), 2.19 inches (2008), and 9.45 inches (2009).[96]

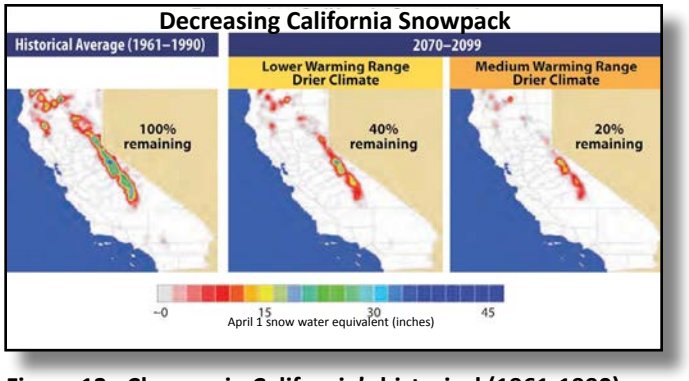

Figure 13. Changes in California's historical (1961-1990) and projected (2070-2099) snowpack.

Reprinted from California Energy Commission. "Public Interest Energy Research Climate Change Program."

In response to this water crisis, local water districts implemented voluntary water conservation measures to ensure a reliable supply of water to Orange County residents. In some cases, water districts implemented mandatory water cutbacks.[97] Fifty percent of Orange County's water supply is imported, so as statewide problems occur, Orange County will continue to face water supply challenges.[98]

By the end of March 2011, Governor Brown declared the state was no longer in a drought, but continued to urge Californians to conserve water. This declaration official ends Governor Schwarzenegger's Executive Order S-06-08 and the official State of Emergency from June 2008 and February 2009. DWR expects it will deliver 70% of the water requested via the State Water Project,[99] while MWD released a statement that it would lift all mandatory restrictions.[100]

Though the drought may be over, Southern California's has a Mediterranean climate and usually gets only 10-20 inches of rain or less per year classifying this area as a semi-arid.[101] Until we start

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89 California Department of Water Resources (DWR). Drought Statistics. Retrieved 24 Oct 2009, from the DWR website: *http://www.water.ca.gov/drought/*.

90 California Department of Water Resources. "California Drought." (September 2010). Retrieved 24 Oct 2009 from the DWR website: *http://www.water.ca.gov/drought/docs/DroughtReport2010.pdf.*

91 California Department of Water Resources. "Executive Update: Hydrologic Conditions in California." Retrieved 4 May 2011 from the DWR website: *http://cdec.water.ca.gov/cgi-progs/reports/EXECSUM.*

92 California Department of Water Resources. "Executive Update: Hydrologic Conditions in California."

93 Metropolitan Water District. "A Call to Save Water."

94 Metropolitan Water District. "Water Reserve Levels." Retrieved 24 Oct 2009, from MWD's website: *http://www.mwdh2o.com/mwdh2o/pages/yourwater/WaterAlert/levels.html*.

95 Metropolitan Water District. "Water Alert." Retrieved 20 Oct 2010, from MWD's website: *http://www.mwdh2o.com/mwdh2o/pages/yourwater/WaterAlert/levels.html#details*.

96 Municipal Water District of Orange County (MWDOC). "Annual Rainfall in Orange County." Retrieved 13 Jun 2009 from the MWDOC website: *http://www.mwdoc.com/documents/FYERainfallinSantaAna.pdf*.

97 Yorba Linda Water District (YLWD). "Conservation Ordinance 09-01." Retrieved 27 Oct 2009 from YLWD website: *http://www.ylwd.com/conservation/ordinance.html*.

98 Municipal Water District of Orange County. "Water Resources." Retrieved 24 Oct 2009, from the MWDOC website: *http://www.mwdoc.com/Water_resources.htm*.

99 Office of the Governor. "Governor Brown Ends State's Drought Status, Urges Californians to Continue to Conserve. (30 Mar 2011). Retrieved from the Governor's website: *http://gov.ca.gov/news.php?id=16959*.

100 Metropolitan Water District. "Southlands' Improved Water Reserve Conditions Allow Metropolitan's Board to Lift Mandatory Restrictions." Retrieved 4 May 2011, from the MWD website: *http://www.mwdh2o.com/mwdh2o/pages/news/press_releases/2011-04/Allocation.pdf*.

101 De Blij, H.J. and Peter O. Muller. Geography: Realms, Regions and Concepts (7th Edition). (New York: John Wiley & Sons, Inc. 1994).

to design our communities and create landscapes that require less water, we will continue to face water supply challenges. Lack of precipitation impacts more than just the residents—it also impacts natural lands in the form of a higher incidence of wildfires.

Extreme Weather Patterns

"The climate is changing," said Jay Lawrimore, Chief of Climate Analysis at the National Climatic Data Center in Asheville, N.C. "Extreme events are occurring with greater frequency, and in many cases with greater intensity."[102] As Earth's air begins to warm, it will be able to hold more moisture and cause significantly stronger weather events when that moisture is released as rain or snow.[103]

In the United States, wet areas will be wetter and dry areas will become drier.[104] Case in point, according to the National Oceanic and Atmospheric Administration, July 2010 was the second warmest July on record since in 1998.

Below are some recent extreme weather patterns:

United States (Jan. 2011)[105]
All but one (Florida) of the 50 states had snow on the ground. Snow storms enveloped the fifth largest area of snow cover in 45 years, and yet it was the 9th driest January on record.

Tennessee Superstorm (May 1-2, 2010)[106]
A "superstorm" released up to 20" of rain in 48 hours. In some areas it was equivalent to a greater than 1,000 year rain deluge.

Southern California (Dec. 22, 2010)[107]
A week of heavy rains brings half of the Los Angeles Basin's annual rainfall in seven days (8.52"), while mudslides wreak havoc in Canyon communities and Laguna Beach.

Gulf Coast Hurricane Katrina (Aug. 29, 2005)[108]
At landfall, Hurricane Katrina had sustained winds at 125 mile per hour (Category 3) and a 29 foot tall storm surge. This storm surge was the highest ever measured in U.S. history.

NASA Goddard MODIS Rapid Response Team

Composite image from NASA's Terra satellite shows a massive storm over the U.S. 31 Jan 2011.

Bob Hunt

NASA

102 Gillis, Justin. "In Weather Chaos, A Case for Global Warming." New York Times. (14 Aug 2010). Retrieved 28 Mar 2011, from the New York Times website: *http://www.nytimes.com/2010/08/15/science/earth/15climate.html*.

102 Blakemore, Bill. "Extreme Weather Fits Global Warming Pattern." ABC News. (24 Jun 2006). Retrieved 28 Mar 2011, from the ABC News website: *http://abcnews.go.com/WNT/GlobalWarming/story?id=2115144&page=1*.

104 Gillis, Justin. "In Weather Chaos, A Case for Global Warming."

105 Brennan, Pat. "January: Cold, Snowy—and Dry?" Orange County Register. (18 Feb 2011). Retrieved 28 Mar 2011, from the Orange County Register website: *http://sciencedude.ocregister.com/2011/02/18/january-cold-snowy-and-dry/121873/*.

106 Climate Progress. "Stunning NOAA Map of Tennessee's 1000 year deluge." (26 May 2010). Retrieved 28 Mar 2011 from the Climate Progress website: *http://climateprogress.org/2010/05/26/nashville-katrina-tennessee-superstorm-1000-year-flood/*.

107 Frere, Eileen and E. Michaelson. "Mudslides Damage Homes in OC Neighborhoods." ABC Local. (22 Dec 2010). Retrieved 28 Mar 2011, from the ABC Local website: *http://abclocal.go.com/kabc/story?section=weather&id=7858242*.

108 National Atmospheric and Oceanic Administration (NOAA). "Hurricane Katrina." Retrieved 17 Mar 2011, from the NOAA website: *http://www.ncdc.noaa.gov/special-reports/katrina.html*.

Claire Schlotterbeck

Increased Wildfires

Though fires are a natural part of the ecosystem regime in California, there is nothing natural about the severity, size, and frequency of wildfires our wildlands are experiencing. California's forests are at significant risk of increased fires due to higher temperatures and decreased moisture in the vegetation.[109]

Since 1986, the number of major forest fires in California has quadrupled due to more days with summer-like and generally hotter temperatures.[110] This increase in fires has numerous implications, including but not limited to: increased firefighting costs, increased danger to residents near the wildland urban interface, and a transition of habitat types to more flammable vegetation due to increased fire frequency. Wildland fires are lasting much longer, sometimes up to five weeks compared to a one week average in the mid-1980s.

Fires also cost a lot of money to fight—the U.S. regularly spends more than $1 billion a year to fight wildfires.[111] This does not include the losses in terms of homes burned and natural resources destroyed. It is expected that annual costs associated with homes destroyed by wildland fires will well exceed $1 billion a year by 2050.[112]

Besides damaging our air quality, one further consequence of these wildfires is the loss of forests' ability to sequester carbon. Carbon sequestration is the process by which plants hold or store carbon taken from the atmosphere. During photosynthesis, plants absorb carbon and convert it to sugar using sunlight. In return they release oxygen into the atmosphere. When plants burn in a wildfire they release the carbon back into the air. Two techniques for combating carbon dioxide emissions is to protect more land (thereby sequestering more carbon) and to plant more trees (since younger trees absorb more carbon as they grow than older trees).[113]

The California Department of Forestry and Fire Prevention (Cal Fire) maintains statistics on fires statewide.

California's Fire Plan and Zones

As mandated by Congress, California has created a statewide Fire Plan. It utilizes three components to rank the threats of fires along the Wildland Urban Interface (WUI). Fuel Hazards, the first component,

[109] Department of Justice. "Climate Change Impacts in California."

[110] California Energy Commission. "Public Interest Energy Research Climate Change Program."

[111] Westerling, A.L., et al. "Warming and Earlier Spring Increase Western US Forest Wildfire Activity." Science Magazine. (18 August 2006, Volume 313). 940-944.

[112] Department of Justice. "Global Warming Impacts in California."

[113] United States Environmental Protection Agency (EPA). "Carbon Sequestration in Agriculture and Forestry." Retrieved 4 Nov 2009, from the EPA's website: *http://www.epa.gov/sequestration/faq.html*.

Cal Fire Yearly Comparison Chart
2009-2010

Interval	Fires	Acres Burned
January 1, 2010 to December 4, 2010	4,849	28,643
January 1, 2009 to December 4, 2009	4,639	83,053
5 Year Average (same interval)	6,755	248,783

Figure 14. The number of fires and acres burned in a two year comparison and a five year average.

Reprinted from data on the Cal Fire website.

incorporates vegetation maps that were converted into fuel models (known as Fire Behavior Prediction Systems). The second component assesses the probability of a wildland fire using factors such as ignition source, fuel condition, weather, and fire suppression response. The third component defines areas that lead to suitable WUI housing densities and that incorporate fire protection strategies.

In addition to the California Fire Plan, Cal Fire posted recommended maps for Very High Fire Hazard Severity Zones in local responsibility areas from June to September 2008. (These maps have not yet been adopted.) The maps are based on fuels, terrain, and weather found in each county. This effort is part of the Fire and Resource Assessment Program (FRAP). "FRAP assesses the amount and extent of California's forests and rangelands, analyzes their conditions, and identifies alternative management and policy guidelines."[114] Mitigation strategies along the WUI are then designed based on the hazard zone to reduce the risk associated with the wildland fire. All of these governmental efforts are a reflection of the realization that longer fire seasons are here to stay and we need to pay attention to the permanent changes this could bring to our state. See the State Responsibility Areas Map on page 34.

Cal Fire has also identified communities at risk from wildland fires. See the Communities at Risk from Wildland Fires Map on page 35.

Though local plant communities, specifically coastal sage scrub and chaparral, are adapted to Southern California's Mediterranean climate, even they are struggling with increased fire frequency as evidenced by the type conversion to non-native grasses.[115]

Orange County's Fire Zones

All of Orange County's undeveloped wildlands, including, but not limited to, the Laguna Coast, the Irvine Ranch lands, Santa Ana Mountains, and Puente-Chino Hills are in the very high fire hazard areas. Orange County has experienced two of its most devastating wildfires in the last 30 years.[116] There is no doubt that extremely dry conditions, increased WUI, and Santa Ana winds factored into the catastrophic impacts of these two fires on local wildlands and communities.

Cal Fire has created county-specific maps. See the OC Fire Hazard Severity Zones Map on page 36.

Lee Paulson

[114] California Department of Forestry and Fire Protection (Cal Fire). "About the Fire and Resource Assessment Program." Retrieved 27 Oct 2009, from the Cal Fire website: *http://frap.fire.ca.gov/aboutfrap.html*.

[115] Halsey, Rick. Fire, Chaparral and Survival in Southern California. (San Diego: Sunbelt Publications, Inc. 2005).

[116] Orange County Fire Authority (OCFA). After Action Report: Santiago Fire. Retrieved 27 Mar 2008, from the OCFA website: *http://www.ocfa.org/_uploads/pdf/aar_3-27-08.pdf*.

Figure 15. Cal Fire has designated various areas of the state within or outside of the State Responsibility Area (SRA) for fire protection.

Reprinted from the Cal Fire Fire and Resource Assessment Program website.

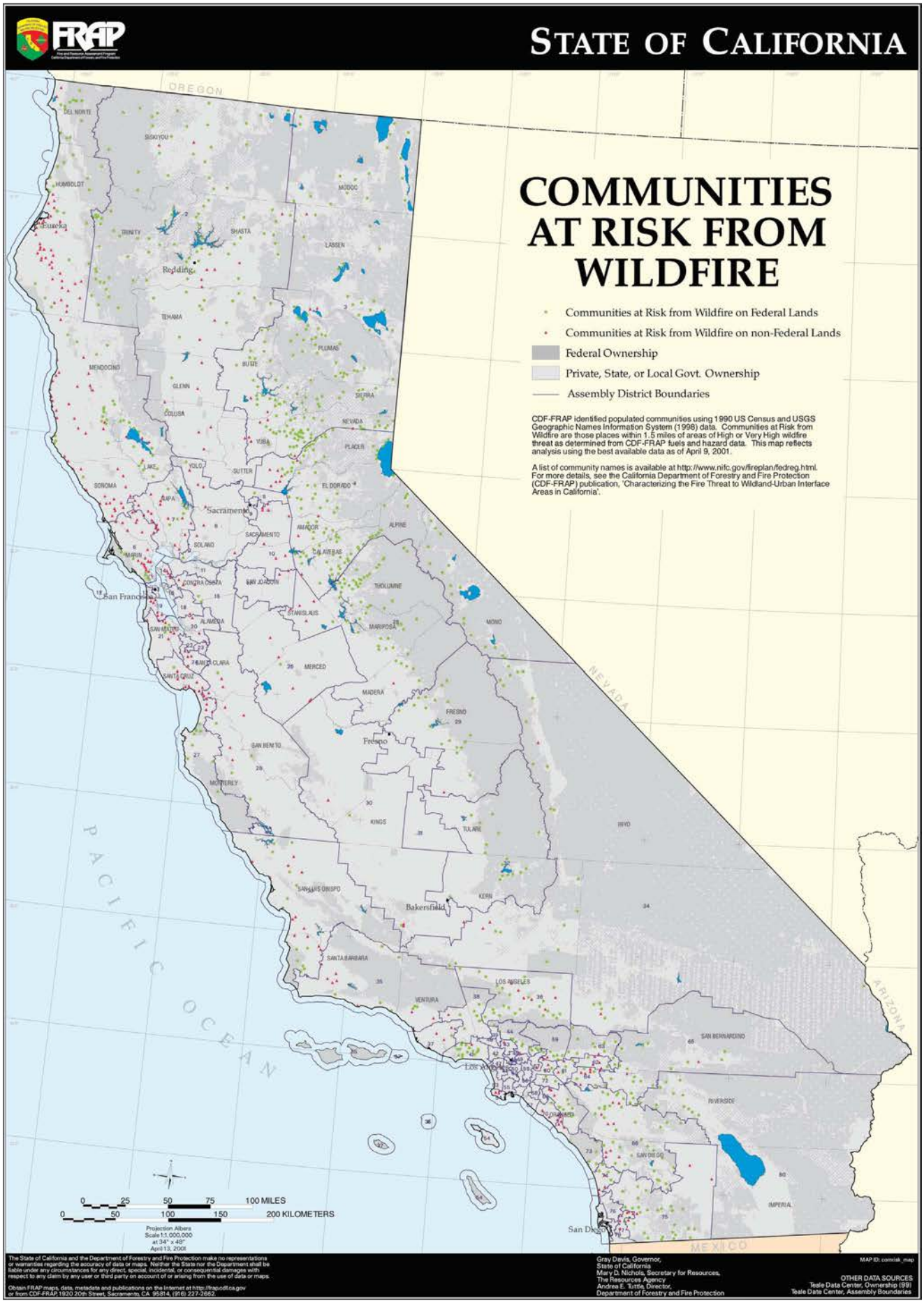


Figure 16. Cal Fire has designated various communities at risk of wildland fires.

Reprinted from the Cal Fire Fire and Resource Assessment Program website.

Figure 17. Cal Fire has created maps for each county in the state outlining the high fire hazard severity zones in the SRAs.

Reprinted from the Cal Fire's Fire and Resource Assessment Program website.

The Santiago Fire (2007)

The 2007 Santiago Fire in the foothills of the Santa Ana Mountains burned 28,517 acres. This fire was understaffed for quite some time as it was one of 16 fires in Southern California burning between October 20 and October 31. This firestorm along with several others became known as the Southern California Fire Siege of 2007. The Santiago Fire forced thousands of people to evacuate their homes from Silverado Canyon to Trabuco Canyon and even into more urban areas of Irvine and Lake Forest. At its peak, the Orange County Fire Authority utilized mutual aid from around the state totaling 1,982 fire personnel, 212 engines, and 15 aerial crews. Started by an arsonist, this Santa Ana wind-driven fire damaged or destroyed 22 homes. Cal Fire and the U.S. Forest Service estimated this fire to cost $20.5 million to fight.[117]

The Freeway Complex Fire (2008)

The 2008 Freeway Complex Fire in the foothills of north Orange County burned 30,305 acres. Two separate fires converged to make the Freeway Complex Fire the largest wildland fire in Orange County since the Green River Fire of 1948. The Freeway Complex Fire forced nearly 40,000 people to evacuate from their homes in four counties (Riverside where the first fire started, Orange County where a second fire started, and San Bernardino and Los Angeles Counties where the fires eventually burned). The fire burned 14 acres per minute or the length of 14 football fields every 60 seconds. Ninety percent of Chino Hills State Park burned in this conflagration. At its peak, fire agencies utilized 3,800 fire personnel, 650 engines, and 19 aerial crews. Two Santa Ana wind-driven fires eventually converged and destroyed in their paths 187 homes entirely and damaged 127 homes. The cost of fighting this fire was $16.1 million.[118]

The Changing Landscape

Because of the new fire regime local plant communities are changing significantly due to the frequency and intensity of wildfires. What were once hillsides covered with an "elfin forest" are now grasslands with weedy, flammable, non-native species dotted with a few native oak or walnut trees.

Bob Hunt

When fires happen too frequently some young plants do not have enough time to grow back and produce mature seeds. Other plants store energy in their roots and then re-sprout from stumps. Repeated fires can sap so much energy with the demands of frequent re-sprouting that plants run out of stored energy. As the shrubs die off, non-native vegetation takes over. These annual grasses not only cannot provide the cover or the nutrition for wildlife, but they also die off faster in spring than native grasses and this extends the fire season. Non-native grasses and vegetation also ignite easier and spread fire faster than the native chaparral, coastal sage scrub, and woodlands.[119]

Looking Ahead

After the devastating fires in Orange County, fire officials, planners, developers, agencies, and non-profits began shifting the focus from primarily a reactionary fire plan (i.e., fighting fires when they occur) to a preventative fire plan (e.g., creating buffers between communities and natural lands). This shift is evidenced in two ways.

First, Fire Safe Councils in both the Santa Ana Mountain foothills and Carbon Canyon in North Orange County are engaged in proactive outreach and prevention. From newsletters to fire awareness fairs and from removal of non-native flammable plants like *Arundo donax* to the installation of high-tech heat sensitive attic vents, residents are stepping up to reduce the threat of future fires.

Second, fire agencies are paying more attention to ensuring adequate defensible spaces between parklands and contiguous residential areas. This,

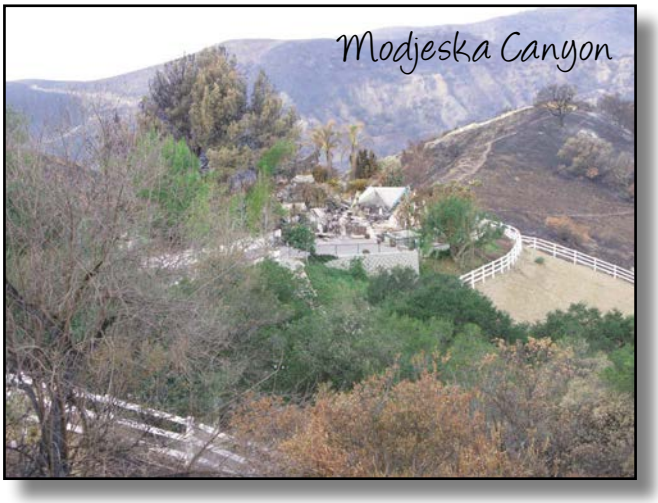
[117] Orange County Fire Authority. After Action Report: Santiago Fire.

[118] Orange County Fire Authority. After Action Report: Freeway Complex Fire. Retrieved 23 Apr 2009, from the OCFA website: *http://www.ocfa.org/_uploads/pdf/fcfaar.pdf*.

[119] Halsey, Rick. Fire, Chaparral and Survival in Southern California.

along with water reliability and availability, could have reduced the impacts of the Freeway Complex Fire. The particular issue of defensible space, and who is responsible for making sure it is created and then maintained, ultimately ties to the larger issue of regional planning.

It is clear that climate change will continue to modify the California and Orange County landscape. But climate change legislation brings new tools for improving the outlook.



Bob Hunt

AB 32

Chapter 5

I say the global warming debate is over. We know the science. We see the threat and we know the time for action is now.

– Arnold Schwarzenegger
Former California Governor
In a speech to the United Nations

In recognition of potential impacts to the state, the California Legislature passed, and Governor Arnold Schwarzenegger signed into law, AB 32—the California Global Warming Solutions Act of 2006. Simply put, AB 32 sets targets to reduce GHG emissions by 2020 down to 1990 levels (15% below 2010 emissions) and 80% reduction of GHG emissions from 1990 levels by 2050.[120, 121, 122] Governor Schwarzenegger issued Executive Order S-3-05 on June 1, 2005, which said:

> "California is particularly vulnerable to the impacts of climate change . . . increased temperatures threaten to greatly reduce the Sierra snowpack, one of the State's primary sources of water . . . increased temperatures also threaten to further exacerbate California's air quality problems and adversely impact human health . . . rising sea levels threaten California's 1,100 miles of valuable coastal real estate and natural habitats; and . . . the combined effects of an increase in temperatures and diminished water supply and quality threaten to alter micro-climates within the state, and result in variations in crop quality and yield."[123]

Full implementation of AB 32 is required by 2012 but in the meantime, jurisdictions must look at how projects proposed or allowed for in their General Plan will add to GHG emissions. In other words, in order to meet the mandate for 2020, every project must have a baseline study of its existing contribution to emissions and a projected level of emissions. The California Air Resources Board (CARB) is the lead agency for implementing this mandate.

Oversight and Timeline

CARB is part of the California Environmental Protection Agency and reports directly to the Governor's Office. CARB's mission is "to promote and

[120] For the average American this means reducing their current emissions from 14 tons per capita annually to just over two.

[121] State of California. "Executive Order S-3-05." Retrieved 13 Jun 2009, from the Department of Transportation website: *http://www.dot.ca.gov/hq/energy/ExecOrderS-3-05.htm*.

[122] California Air Resources Board (ARB). "Climate Change Scoping Plan." (December 2008). Retrieved 15 Dec 2010, from the ARB website: *http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf*.

[123] State of California. "Executive Order S-3-05." 1.

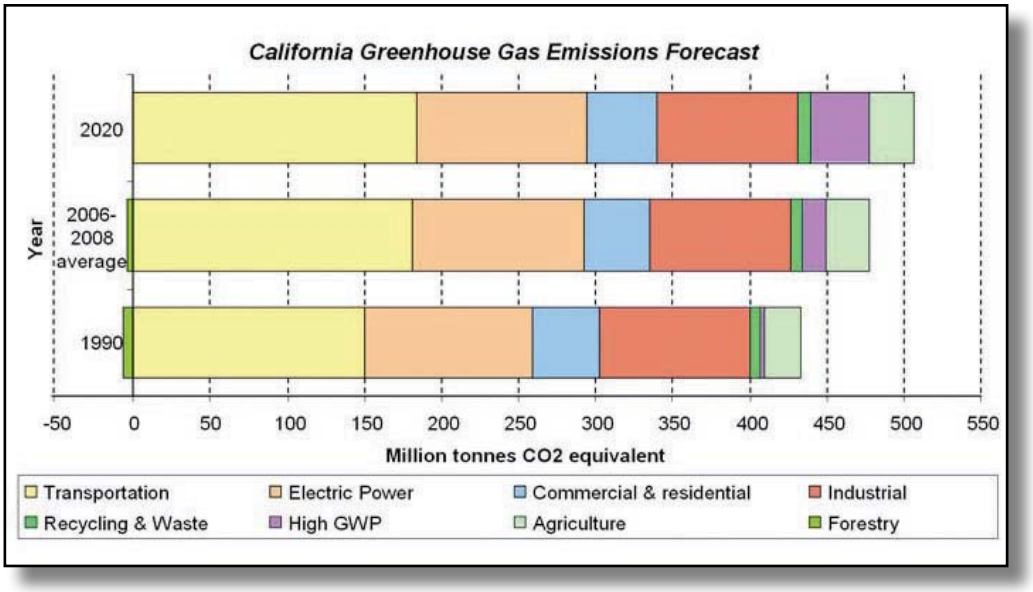


Figure 18. California Greenhouse Gas Emissions Forecast.

Reprinted with permission from the California Air Resources Board. Forecast last updated: 28 October 2010.

protect public health, welfare and ecological resources through the effective and efficient reduction of air pollutants while recognizing and considering the effects on the economy of the state."[124] Under AB 32's mandate, CARB began a Scoping Plan to lay out the framework and strategies of how California will meet the requirements of its new climate change legislation.

AB 32 created a timeline of milestones:

- By January 1, 2009 - CARB adopted its plan indicating how emission reductions will be achieved from significant sources of GHGs via regulations, market mechanisms, and other actions.
- During 2009 - CARB staff drafted rule language to implement its plan and holds a series of public workshops on each measure (including market mechanisms).
- By January 1, 2010 - Early action measures took effect.
- During 2010 - After workshops and public hearings, CARB conducted a series of rulemakings to adopt GHG regulations including rules governing market mechanisms.
- By January 1, 2011 - CARB completed major rulemaking for reducing GHGs including market mechanisms. CARB may revise the rules and adopt new ones after January 1, 2011 in furtherance of the 2020 cap.
- By January 1, 2012 - GHG rules and market mechanisms adopted by CARB take effect and are legally enforceable.
- December 31, 2020 - Deadline for achieving 2020 GHG emissions cap.

Implementation of AB 32

In 2008, CARB released its draft Scoping Plan for public review and by December 2008, the Board approved the Plan. It outlines strategies our government can use to cut emissions by 30% by 2020.[125] It notes that one of the easiest implementation strategies is to utilize the "low hanging fruit"—existing technologies—to reduce emissions.

The Adopted Scoping Plan's key recommendations include:

- "Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a statewide renewable energy mix of 33 percent;
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;

[124] California Air Resources Board. "Mission, Goals and Strategic Plan." Retrieved 24 Oct 2009, from the ARB website: *http://www.arb.ca.gov/html/mission.htm*.

[125] California Air Resources Board. "AB 32 Adopted Scoping Plan." Retrieved 15 Oct 2009, from the ARB website: *http://www.arb.ca.gov/cc/scopingplan/scopingplan.htm*.

- Establishing targets for transportation-related greenhouse gas emissions for regions throughout California, and pursuing policies and incentives to achieve those targets;
- Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State's long term commitment to AB 32 implementation."[126]

Without national climate change legislation, California has decided to move forward on its own and in that effort has thrust itself into some pioneering policies. California is one of a handful of states developing and implementing climate change legislation and policies.[127] In fact, California is a partner in the Western Climate Initiative which includes a comprehensive effort to reduce GHG emissions, spur clean energy technology that create green jobs, and decrease our dependence on foreign oil.[128] Through its extensive leadership on the issue, California has the foresight and vision to address this crisis and to ensure its residents, their property, and the state's infrastructure is protected.

[126] California Air Resources Board. "AB 32 Adopted Scoping Plan." ES-3, 4.

[127] Pew Center on Global Climate Change. "State Legislation from Around the Country." Retrieved 17 Mar 2011, from the Pew Center's website: *http://www.pewclimate.org/what_s_being_done/in_the_states/state_legislation.cfm*.

[128] Western Climate Initiative. "Western Climate Initiative." Retrieved 17 Mar 2011, from the Initiative's website: *http://www.westernclimateinitiative.org/index.php*.

SB 375

Chapter 6

We know how to solve half the [climate] problem with technology and money, but the other half will come from changes in behavior.

– Secretary Mary Nichols
Air Resources Board Chair
From 2009 Applied Solutions Speech

According to the state, passenger vehicles are the single largest source of carbon emissions in California.[129] Therefore, in order to meet the mandates of AB 32 we must significantly reduce our vehicle miles traveled (VMT). It is not enough to have cleaner fuel and more efficient cars. SB 375 was created as a planning tool to link transportation and land use. It is the most recent bill to assist in meeting the targets set by AB 32. This bill is essentially asking us to envision what we want our region to look like in 30 years and begin planning for that now.[130]

SB 375

Known as the anti-sprawl bill, SB 375 was signed by Governor Schwarzenegger in October 2008. It is an incentive based bill that offers, when appropriate, streamlined environmental review for sustainable developments that link land use, transportation, and housing. This means "building up and in, not out" and improving the efficiency and connectivity of our homes to our employment centers via our road and transportation networks. In other words, building vertically and on the "interior" of the County instead of building into the wildland areas on the urban edge.

SB 375 requires each Metropolitan Planning Organization (MPO) to prepare a "Sustainable Community Strategy" (SCS) for its region that outlines how its future planning scenarios reduce VMT and overall GHG emissions. Instead of the city-by-city planning effort, which is how most areas currently operate, SB 375 promotes a comprehensive region-wide perspective—a comprehensive plan—for how the region will continue to grow and still reduce emissions.[131] Like AB 32, CARB is the lead agency for implementing this legislation.

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[129] Office of the Governor. "Factsheet – SB 375: Redesigning Communities to Reduce Greenhouse Gas Emissions." (October 2008). Retrieved 27 Oct 2009 from the Office of the Governor's website: *http://gov.ca.gov/index.php?/fact-sheet/10707/*.

[130] Leib, Jacob. Southern California Association of Governments. Orange County SB 375 Stakeholder Workshop. 27 Oct 2009.

[131] The Planning Report. "SB 375 Connects Land Use and AB 32 Implementation." (July 2007). Retrieved 27 Oct 2009 from The Planning Report website: *http://www.planningreport.com/tpr/?module=displaystory&story_id=1257&format=html*.

Melanie Schlotterbeck

According to Bill Fulton, founder and principal editor of the prestigious California Planning and Development Report, SB 375 is:

> "[M]ore powerful than advertised because it contains potentially revolutionary changes in California's arcane processes of regional planning for transportation and housing —largely by mandating the creation of "sustainable" regional growth plans … [b]ut it's less than revolutionary on the land-use front, largely because it's incentive-based."[132]

In the end, some believe this law will not actually become as powerful as it could be unless regional transportation planning agencies and local governments take it seriously and actually choose to try to achieve their mandated emissions reduction targets. Because local governments are not required to comply with the sustainable community strategies, the regional plans will succeed only if the process generates strong support at both the local and regional level.

Sustainable Communities Strategy

Federal and state laws already require MPOs to create Regional Transportation Plans (RTPs). RTPs are long-range plans that cover a mix of transportation services from transit opportunities to bicycle paths and transportation demand management to safety improvements. Federal law requires RTPs to extend out 20 years and be updated every four years. SB 375 adds a new state requirement to RTPs—the inclusion of a Sustainable Communities Strategy.

The SCS will help regions develop achievable targets for emission reductions while balancing regional transportation demands, housing needs, and preservation of resource lands. Each MPO will be required to develop its own SCS that will be updated periodically in conjunction with its Regional Transportation Plan.[133] Emissions reduction targets are to be met by 2020 and 2050.

SB 375 allows for streamlined environmental review of projects that meet specific criteria outlined in the bill.

Regional Targets Advisory Committee

CARB appointed a Regional Targets Advisory Committee (RTAC) in January 2009 to "provide recommendations on factors to be considered and methodologies to be used in CARB's target setting process."[134]

The RTAC developed seven steps and a timeline to set the expectations and communications between MPOs and CARB and help meet major milestones. In addition, the RTAC recommended a "statewide uniform relative target," which would be expressed as a percentage per capita as compared to a base

[132] Fulton, Bill. "SB 375 is Now Law – But Now What?" California Planning and Development Report (1 Oct 2008). Retrieved 27 Oct 2009, from the California Planning and Development Report website: *http://www.cp-dr.com/node/2140*.

[133] Housing California. "Summary of SB 375." Retrieved 27 Oct 2009, from Housing California's website: *http://www.housingca.org/policy_leg/policynews/sb375summary/*.

[134] California Air Resources Board. "Senate Bill 375 Implementation." Retrieved 27 Oct 2009, from the ARB website: *http://www.arb.ca.gov/cc/sb375/sb375.htm*.

year—likely to be 2005. Because of the recession and economic market changes, 2005 was selected as the base year since it more accurately reflected the most recent typical year before the recession began.[135]

In September 2010, SCAG's Regional Board met to discuss and decide on its recommendations for emissions reduction targets. These targets would be sent to CARB for its final decision later that month. SCAG's staff had recommended approving 8% reductions by 2020 and 13% by 2035—ambitious targets that would require a significant change in land use planning for the SCAG region. Even though speakers from the development community, transportation advocates, and conservation and community groups (by a two-to-one margin) encouraged those ambitious targets and vision—the SCAG board ultimately approved the less demanding targets of 6% and 8%.

However, with the ultimate authority, CARB chose to adopt ambitious targets for most MPOs in California, including SCAG.

The following is a list of reduction targets adopted by CARB calling for a percent reduction in per-capita emissions by 2020 and 2035:

CARB Reduction Targets
ADOPTED SEPTEMBER 2010

Region	2020 Target	2035 Target
San Diego	7%	13%
Sacramento	7%	16%
Bay Area	7%	15%
Southern California*	8%	13%
San Joaquin Valley**	5%	10%

Figure 19. The targets adopted by the California Air Resources Board in September 2010.

* With the 2035 target conditioned on discussions with the MPO.
** includes 8 planning organizations. Targets to be revisited in 2012.

Targets for the remaining six Metropolitan Planning Organizations—the Monterey Bay, Butte, San Luis Obispo, Santa Barbara, Shasta, and Tahoe Basin regions—generally match or improve upon their current plans for 2020 and 2035.

Source California Air Resources Board's website on SB 375's Regional Targets: *http://www.arb.ca.gov/cc/sb375/sb375.htm*.

These GHG emission reduction targets will need to be met through a reduction in vehicle emissions. The way vehicle emissions get reduced is by reducing how much we travel in our cars—this is what aligns with SB 375's goals to GHG emissions reductions. Therefore, reducing VMTs (how much we drive) via passenger vehicles and light duty trucks will reduce GHG emissions.

Southern California and SB 375

The MPO responsible for Orange County is SCAG. SCAG oversees six counties (Ventura, Los Angeles, Riverside, San Bernardino, Orange, and Imperial) and 189 cities. SB 375 specifically called out SCAG, which has 14 sub-regions, and allows each sub-region, if it elects, to complete its own sub-regional SCS. This will in turn get adopted into the larger "master" SCS for the region. This allows individual sub-regions to create their own plans in response to local conditions in lieu of following the emission reduction strategies to be adopted by SCAG. There are only two sub-regions that have elected to complete a sub-regional SCS: Orange County and the Gateway Cities.

Though there is no penalty for not meeting the regional reduction target, each sub-region must show a good faith effort to meet the regional target. If the target will not be met or cannot be met, the sub-region must adopt an Alternative Planning Strategy (APS) to help achieve the target. The APS identifies the obstacles and how alternative planning methods, transportation measures, and infrastructure will be modified to meet the goal.

[135] Leib, Jacob. Southern California Association of Governments.

Orange County and SB 375

Orange County's sub-region is governed by the Orange County Council of Governments (OCCOG). OCCOG and the County's transportation agency, the Orange County Transportation Authority (OCTA) formalized their intent to complete a sub-regional SCS via a memorandum of understanding between OCCOG, OCTA, and SCAG. In August 2010, consultants were hired to write Orange County's sub-regional SCS (OC SCS).

The first draft of the OC SCS was released March 29, 2011 and has gone through several iterations in April. In late April 2011, the OCTA Board and OCCOG Board adopted the April 13, 2011 version of the OC SCS for submittal up to SCAG for its preliminary review. The final version of the OC SCS will go to SCAG for inclusion in the regional (master) SCS in June.

Orange County SCS Timeline

Activity	Completion Date
Orange County Projections	January 2011
Sub-regional SCS Developed	Late 2010/Early 2011
SCS Public Outreach	Early 2011
Draft OC SCS to SCAG	April 2011
Final OC SCS to SCAG	June 2011
SCAG Releases Draft RTP/SCS	November 2011
SCAG Adopts RTP/SCS	April 2012

Figure 20. The Orange County sub-regional and SCAG's regional SCS timeline.

Reprinted from an OCCOG Handout "OC SCS/SCS Schedule Overview."

OCCOG Works with Conservation Groups on a New Land Use Strategy

Conservation and community groups have been participating in the OCCOG's sub-regional SCS meetings to ensure their collective interests were represented. They submitted group comment letters and ultimately requested the inclusion of a new land use strategy in the OC SCS. They proposed a strategy that included adding natural land preservation and restoration as a way to avoid development-related carbon emissions, sequester carbon, and avoid new VMTs in less developed regions of the County.

Working closely with OCCOG, the strategy was included in the third revision of the OC SCS. The strategy's inclusion came with the support of 26 environmental organizations.

The OC SCS strategy language states: "[Jurisdictions may] [s]upport willing seller open space preservation that leverages existing regional conservation efforts and at the same time reduces carbon emissions. Superior resource management, restoration, and avoidance of resource land conversion to development are emerging means of emissions avoidance or reductions. This conservation or protection may occur through the purchase of natural resource lands. There are a multitude of benefits and co-benefits for this strategy including decreased need for future infrastructure in less developed regions of the county; avoidance of construction, household, and infrastructure emissions; and avoidance of VMTs that would have been generated if the land was converted.

The OC SCS, by leveraging existing conservation efforts such as Renewed Measure M's Mitigation Program, can lead the way for strategic open space/resource protection as a means of reducing the County's carbon footprint and meeting the goals of SB 375. Through this strategy, local jurisdictions and other organizations may align their planning priorities and land use decisions together with funds necessary to purchase and preserve natural lands.

Jurisdictions and organizations have the option to invest early in this open space strategy which offers both near-term and long-term GHG emissions avoidance benefits."[136]

[136] Orange County Council of Governments. "Preliminary Draft Orange County Sustainable Communities Strategy (SCS)." (21 Apr 2011) Retrieved 21 Apr 2011 from the OCCOG's OC SCS website: *http://www.oc-scs.org/index.php?option=com_content&view=section&layout=blog&id=2&Itemid=3*.

Tying It All Together

Chapter 7

The significant problems we face cannot be solved at the same level of thinking we were at when we created them.

— Albert Einstein (1879-1955)
Theoretical Physicist

It is clear that California's new climate change legislation will impact both General Plans and the implementation of CEQA. By mandating a reduction of greenhouse gases to 1990 levels by 2020 and then providing implementing legislation that ties transportation to land use planning—California is now primed to meet its goals.

AB 32 means that we can no longer keep approving projects as we always have—we need to rethink how we plan our communities and the circulation systems that serve them.

SB 375 means building up and in, not out and improving the efficiency and connectivity of our homes to our employment centers via our transportation networks.

Though the state has mandated new environmental policies, some local decision makers seem unable or unwilling to grasp the challenges that lie ahead for our region, state, and planet. Maybe they feel stuck in yesterday's thinking, technologies, and policies. For example, one recent idea offered locally to the challenge of planning for a sustainable future was to build more roads!

Our decision makers and their staff need specific tools to help them implement sustainable planning.

General Plans and Climate Change

Right now, many cities and counties are taking the first steps toward addressing climate change and sustainability at the General Plan level. Charged with enforcing state laws, the California Attorney General's office is monitoring EIRs for General Plan updates to be sure they address climate change. Guidance addressing CEQA, climate change, and general planning is emerging in the pending CEQA Guideline amendments, comments, and settlements by the Attorney General and in the public discourse. In addition, the Attorney General's staff has met informally with officials and planners from numerous jurisdictions to discuss CEQA requirements and to learn from those who are leading the fight against climate change at the local level. A "Frequently Asked Questions" document on the Attorney General's website contains useful information for local governments on how to approach climate change in General Plan EIRs.[137]

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[137] State of California. "Climate Change and the California Environmental Quality Act and General Plan Updates: Straightforward Answers to Some Frequently Asked Questions." Retrieved 4 Nov 2009, from the California Attorney General's website: *http://ag.ca.gov/globalwarming/pdf/CEQA_GP_FAQs.pdf*.

In addition, many local governments recognize the substantial benefits of taking a programmatic approach to reducing GHG emissions and preparing for the impacts of climate change. Among other things, a local government has a greater number of mitigation and adaptation options when it looks at the "big picture" than if the analysis is done only at the project-specific level. Indeed, the United States Supreme Court decision in 1927 that first constitutionally authorized cities and counties to zone and prepare plans—*Village of Euclid, et al. v. Ambler Realty Company, 272 U.S. 365, 390 (1926)* (hence, the sometimes labeled practice of "Euclidian zoning" for the more traditional land use schemes)—spoke of the obligation of a local jurisdiction to look beyond its borders to the larger area of which it is a part (the region) in its land use planning. This portion of the high court ruling has been forgotten over time if ever recognized. Moreover, if program-level analysis and mitigation is done well, subsequent projects can greatly benefit from the streamlining allowed under CEQA and from the predictability that results when a local government sets forth a clear plan of action.

Since sustainability and Climate Action Plans, integrated into General Plans and local ordinances, are a relatively new concept, cities and counties are looking for good examples. Fortunately, there are many resources that local governments can use as a starting point for creating their own tailored, community-specific plan.

According to the Office of Planning and Research:

> "Lead agencies should make a good-faith effort, based on available information, to calculate, model, or estimate the amount of carbon dioxide and other GHG emissions from a project, including the emissions associated with vehicular traffic, energy consumption, water usage, and construction activities."[138]

Author's Note: Recommendations for additional information are listed in Appendix of this Resource Directory.

Jim Carr

CEQA and Climate Change

Though you will not find the phrase "global warming" or "climate change" in the CEQA Statutes or Guidelines—that does not mean a lead agency can avoid baseline emissions scenarios in their General Plan updates or EIRs.

An agency's first duty under CEQA is to accurately disclose a project's impacts. An EIR must analyze the impacts associated with GHG emissions. Until greenhouse gasses are properly quantified and the Project's impacts (project-level and cumulative) are disclosed, an EIR can be viewed as inadequate.

The first step in an adequate analysis of the Project's climate change impacts would be to provide an inventory of the Project's GHG emissions from all sources. Gases other than carbon dioxide also contribute to the greenhouse effect.[139] These include, but are not limited to, methane (CH_4), nitrous oxide (N_2O), and hydrofluorocarbons (HFCs). An EIR must inventory all of the Project's emissions, include emissions from construction, employee travel, post-construction energy and water usage, among other things. (Because carbon dioxide is the prevalent greenhouse gas, it may be referred to here as "carbon emissions;" this should be taken to mean any greenhouse gas emissions.)

Because car exhaust is a major contributor to carbon emissions, a full accounting of new VMT as a result of Project development and occupancy is a necessary component of this inventory. Such an accounting is particularly important for projects that are distant from employment and commerce and unserved by any mass transit.

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138 State of California, Office of Planning and Research (OPR). CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review. (19 Jun 2008). Retrieved 14 Jan 2011, from the OPR website: *http://www.opr.ca.gov/ceqa/pdfs/june08-ceqa.pdf*. 5.

139 California Environmental Protection Agency (Cal EPA). "Climate Action Team Report to Governor Schwarzenegger and the Legislature." (March 2006). Retrieved 15 Jan 2011, from the Cal EPA website: *http://www.climatechange.ca.gov/climate_action_team/reports/index.html*.

An EIR must also recognize that all projects make significant contributions to the amount of GHG in the atmosphere through a variety of means beyond VMT. To tell the true story of the Project's role in climate change, the EIR must inventory, at the least, the carbon emissions generated through its energy consumption, the carbon emissions generated throughout the manufacturing and lifecycle of its building materials, and the carbon released into the atmosphere due to a Project's removal of natural habitats. Unless the EIR breaks out its estimates of emissions from different sources, designing appropriate mitigation will be impossible.

Electricity generation accounts for approximately 21% of GHG emissions in California. The amount of carbon emissions resulting from this demand is easily calculated: According to the Energy Star Program, a joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy, one kilowatt hour consumed equates to 1.55 pounds of carbon dioxide emissions. An EIR should include this calculation.

The burning of natural gas similarly emits carbon. The EIR must state how much gas the Project will use, but a figure is calculable, and easily converted into a projection of carbon emissions. Again, this calculation is an essential part of the required analysis of the Project's contribution to climate change. There are a number of emissions calculators available and more are being developed. For example, here are two emission calculators that are currently available: Cool California, and California Emissions Estimator Model (CalEEMod).

Even as various human processes send carbon into the atmosphere, trees take up and store carbon in a process known as carbon sequestration.[140] Carbon that is sequestered is not free in the atmosphere and thus does not contribute to the greenhouse effect. The loss of large amounts of trees results in less carbon sequestration, which in turn exacerbates the effects of global climate change.

Therefore, any EIR prepared for a project that will affect large forested area or natural land must analyze the effects of deforestation on global climate change. Specifically, every acre of forest land has the potential to store between 150 and 230 tons of carbon annually.[141] Therefore, an EIR should estimate, conservatively, the loss of carbon sequestration from Project-related deforestation by multiplying the number of acres of trees to be removed by 230 tons. This, of course, would require the EIR to estimate the acreage of forest to be converted; as noted above, such an estimate is also required for a thorough analysis of the Project's effects on other biological resources. *Note: Forest lands have been studied more heavily and comparable numbers are not readily available for Orange County habitat types like coastal sage scrub, chaparral, grasslands, etc.*

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[140] California Environmental Protection Agency. "Climate Action Team Report to Governor Schwarzenegger and the Legislature." 48-49.

[141] California Environmental Protection Agency. "Climate Action Team Report to Governor Schwarzenegger and the Legislature." 48-49.

The EIR must also analyze the Project's contribution to cumulative impacts. Climate change is an essentially cumulative problem—its impacts occur through the accumulation of carbon emitted by projects all around the world. It is thus less important to determine whether a Project's carbon emissions are significant on their own, and much more important to determine whether they make a cumulatively considerable contribution to climate change as a whole. A project's contribution is cumulatively considerable if its "incremental effects . . . are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects."[142] It is no longer open to debate that emissions of greenhouse gases will lead to increases in average global temperatures and concomitant climate change.

While the Lead Agency is responsible for choosing and applying a standard of significance for both individual and cumulative impacts, it is suggested that AB 32, the California Global Warming Solutions Act, may provide some guidance. A reasonable standard of significance would determine that a Project has a significant impact if its emissions would obstruct achievement of that goal.[143] Because AB 32 requires a statewide reduction in emissions, any project that adds carbon to the atmosphere without providing for at least a corresponding reduction in greenhouse gas emissions will have a potentially significant impact. This approach is in line with the Legislature's clearly stated direction that California must reduce its carbon emissions. Moreover, the finding of significance leads to the most important part of climate change analysis under CEQA—mitigation.

[142] CEQA Guidelines § 15065(a)(3).

[143] Note that this is modeled after the standard provided in Guidelines Appendix G(III)(a), which suggests finding a significant air quality impact where a project would "[c]onflict with or obstruct implementation of the applicable air quality plan."

SB 97

Senate Bill 97 (Chapter 185), signed into law in 2007 by Governor Schwarzenegger, required the Office of Planning and Research to develop recommended amendments to the state CEQA Guidelines for addressing greenhouse gas emissions. The goal was to provide public agencies with an understanding of how to analyze and mitigate the effects of GHG emissions in environmental review documents. Additionally, OPR was required to prepare, develop, and transmit the recommended amendments to the Natural Resources Agency on or before July 1, 2009. The proposed CEQA Guideline amendments became law on March 18, 2010.[144]

There were 14 amendments made to the CEQA Guidelines and two of the Appendices (F & G). One significant amendment was the requirement to quantify and mitigate GHG emissions.

> "[Q]uantification of GHG emissions is possible for a wide range of projects using currently available tools. Modeling capabilities have improved to allow quantification of emissions from various sources and at various geographic scales."[145]

Quantification of emissions will help determine the significance and feasibility to reduce emissions. For example, understanding the source of the emissions (i.e., vehicles, energy consumption, etc.) provides critical information on how, or if, a project can be modified to reduce emissions. Interestingly, several agencies have adopted thresholds of significance for GHG emissions for residential, industrial, and/or operations and construction.[146]

The amendments suggest five, non-exclusive forms of mitigation including:

1. Measures in an existing plan or mitigation program;
2 Reductions through the implementation of project features;
3. Off-site measures;
4. Sequestration; and

[144] Office of Planning and Research. "CEQA Guidelines and Greenhouse Gases." Retrieved 10 Mar 2011, from the OPR website: *http://www.opr.ca.gov/index.php?a=ceqa/index.html*.

[145] Office of Planning and Research. "Final Statement of Reasons for Regulatory Action." (December 2009). 25.

[146] Office of Planning and Research. "Final Statement of Reasons for Regulatory Action."

5. Programmatic documents may identify specific measures that may be implemented on a project by project basis.[147]

The revised CEQA Guidelines also clarified project tiering process. Per SB 375's goals, the Legislature found that if the CEQA Statute encouraged project tiering, local public agencies could help achieve AB 32 goals. Therefore, new guidelines recognize the significance and importance of a programmatic or comprehensive approach to addressing GHG emissions. Long range planning efforts, such as General Plans, Regional Transportation Plans, and Facilities Master Plans, offer the best opportunity to analyze and mitigate GHG emissions programmatically. Additionally, the Legislature has made it clear that there is a preference that Lead Agencies tier environmental documents when they can.[148]

The amendments also reference GHG emissions reduction plans. "The section has no mandatory provisions for the greenhouse gas reduction plan, but provides that the plan may do the following:

- Quantify greenhouse gas emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area;
- Establish a level, based on substantial evidence, below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable;
- Identify and analyze the greenhouse gas emissions resulting from specific actions or categories of actions anticipated within the geographic area;
- Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level;
- Establish a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels; and
- Be adopted in a public process following environmental review."[149]

Climate Action Plans

One tool local governments are using to reduce GHG emissions is the Climate Action Plan, also called a CAP. The Plan requires the calculation of a baseline GHG emission inventory and utilization of a climate calculator to estimate some forms of emissions. Understanding where the emissions are coming from (i.e., what sectors: land use, circulation, energy, etc.) is the first step in targeting and prioritizing what and where the emissions reductions will occur. This very individualized approach allows local jurisdictions to tailor solutions to their particular geography.

One resource for creating your own Climate Action Plan is the Cool California website, which offers a template for a CAP.[150] By way of background, Cool California is a consortium of non-profit organizations, universities, and governments working to provide solutions for all levels (residents, businesses, governments, etc.) to reduce their carbon footprint. Its website has important toolkits, tips, and calculators that can help reduce GHG emissions. Learn more at: *http://www.CoolCalifornia.org*.

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147 Walker, Leslie. "OPR Finalizes Proposed CEQA Guidelines and Transmits Them to Resource Agency." Abbott and Kindermann Land Use Blog. (20 Apr 2009). Retrieved 13 Feb 2011, from the Abbott and Kindermann website: *http://blog.aklandlaw.com/2009/04/articles/ceqa/opr-finalizes-proposed-ceqa-guidelines-and-transmits-them-to-resources-agency/*.

148 Office of Planning and Research. "Final Statement of Reasons for Regulatory Action."

149 Walker, Leslie. "OPR Finalizes Proposed CEQA Guidelines and Transmits Them to Resource Agency."

150 Cool California. "Climate Action Planning." Retrieved 4 May 2011 from the Cool California website: *http://www.coolcalifornia.org/article/climate-action-planning*.

Orange County Policies

Chapter 8

Excellent things are rare.

— Plato (428 BC - 328 BC)
Ancient Greek Philosopher

In May 2009, the Orange County Green Vision Coalition members and others began the task of researching the General Plan of each Orange County city and the County to determine what, if any, policies should be applauded for their innovation. Members and volunteers reviewed the General Plans looking for specific policies on water conservation, pedestrian-friendly communities, smart developments, sustainability, carbon neutral developments, and open space preservation, to name a few.

The end product of this research is the creation of this General Plan Resource Directory that includes sample policy language for Orange County cities that will help decision makers and planning staff create cutting edge General Plans and develop a Climate Action Plan. We hope to give local jurisdictions a path to becoming more sustainable.

Though some of these policies are innovative and cutting edge, others create a good foundation for becoming cutting edge. These foundational policies were worth including because of their potential to evolve into stronger policies.

The following sections include the innovative policies found during this research project, including:

- Administrative
- Agricultural
- Climate Change
- Community Design
- Energy
- Jobs and Housing
- Land Use
- Open Space
- Safety
- Sustainable Development
- Transportation
- Water Conservation and Quality

Cities that were undergoing a General Plan update were not included in this review, but will likely benefit from these sample policies.

A CD attached at the end of this Directory includes innovative policies from other cities and counties around the state.

Aliso Viejo

Melanie Schlotterbeck

City Administrative Offices are often places where important programs and policies can be implemented.

Continue and expand Anaheim's water rebate program.

City: Anaheim — General Plan Element: Green
Page: G-12 — Policy: 5.1-4

Continue and expand the program to convert City vehicle fleets to alternative fuel and/or electric power.

City: Anaheim — General Plan Element: Green
Page: G-21 — Policy: 12.1-1

Provide priority development review processing for low and moderate income housing applications.

City: Cypress — General Plan Element: Housing
Page: Hou-37 — Policy: 5.4

Continue to identify and remove regulatory or procedural barriers to producing renewable energy in building and development codes, design guidelines, and zoning ordinances.

City: Garden Grove — General Plan Element: Conservation
Page: 10.8 — Implementation Strategy: CON-IMP-5B

Integrate technically and financially feasible renewable energy resources requirements into development and building standards through adopted Renewable Energy Building Standards.

City: Garden Grove — General Plan Element: Conservation
Page: 10.8 — Policy: CON-5.1

Provide technical assistance for homeowners for the installation of active solar systems, such as information on optimal orientation and building code requirements.

City: Irvine — General Plan Element: Energy
Page: 1.7 — Policy: I-2(d)

Review City zoning for mixed use opportunities. Offer incentives on a case-by-case basis to encourage the development of housing in conjunction with commercial use and live/work space, such as flexible development standards, increased FAR, reduced fees, etc.

City: Irvine
General Plan Element: Housing
Page: C-60
Policy: C-8(d)

Melanie Schlotterbeck

Cities can offer incentives to help businesses like this one, Nikkel Design and Developers, go green.

Establish developer incentives to encourage well-designed mixed use and infill development projects in these areas.

City: Laguna Hills
General Plan Element: Land Use
Page: A-8
Policy: LU-10

Streamline departments' services and permitting mechanisms to minimize unnecessary traffic trips made by residents and developers.

City: Los Alamitos General Plan Element: Conservation
Page: 2-4 Policy: 2-5.4

Incentives for Provision of LEED Certified Buildings

Provide incentives for implementing Leadership in Environmental and Energy Design (LEED) certified building such as fee waivers, bonus densities, and/or awards recognition programs. (Imp 2.1, 7.1)

City: Newport Beach General Plan Element: Natural Resources
Page: 10-42 Policy: NR 24.4

Increase local tax revenues by providing performance-based financial assistance to new and existing businesses in Orange.

City: Orange General Plan Element: Economic Development
Page: ED-6 Policy: 2.2

Work toward replacing existing City vehicles with ultra low or zero emission vehicles. At a minimum, new City vehicles shall be low emission vehicles as defined by the California Air Resources Board, except if certain vehicle types are not available in the marketplace. Public safety vehicles are exempted from this requirement.

City: Orange General Plan Element: Natural Resources
Page: NR-4 Policy: 2.10

Provide incentives to create neighborhood parks, green spaces, or other public open spaces throughout the City, particularly within commercial and mixed-use corridors.

City: Orange General Plan Element: Urban Design
Page: UD-7 Policy: 4.5

Encourage an environmentally friendly business atmosphere that maintains local regulations favorable to clean industry, and provides assistance to industries seeking to comply with environmental regulations.

City: Orange General Plan Element: Economic Development
Page: ED-7 Policy: 4.5

Brea Energy Efficiency and Solar Project Update

In July 2010 the City of Brea launched a comprehensive energy efficiency and solar power project that will deliver significant savings by improving efficiency, reducing energy costs, and incorporating renewable power generation. This landmark project positions Brea as the largest municipal producer of solar energy in Orange County.

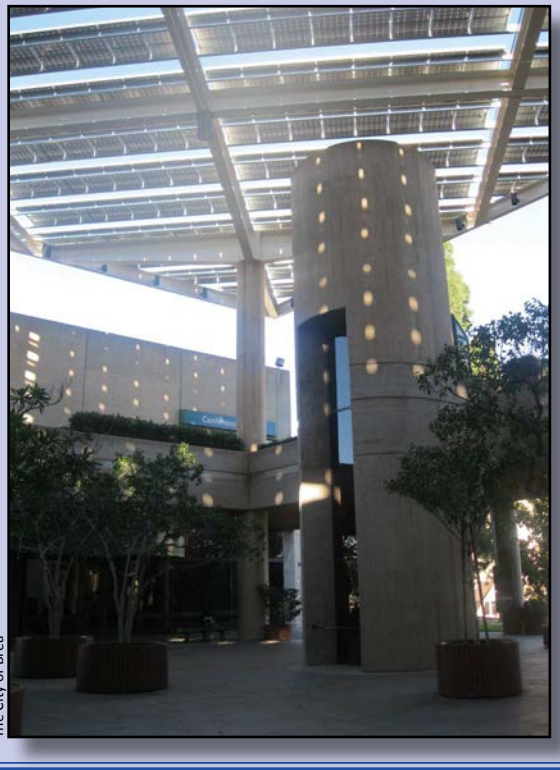
Key Benefits

The energy efficiency and solar power project will provide better work and recreation environments in Brea, as well as other long-term benefits:

- Demonstrates Brea's fiscal and environmental leadership
- Creates significant savings to Brea's General Fund and Water Fund – $2.6 million in energy cost savings in the first five years of the project
- Solar power and energy retrofits reduces utility costs and generates annual savings to pay for infrastructure upgrades
- Solar power at the reservoir helps mitigate future pumping costs to the City
- New energy-efficient air-conditioning package units at the Community Center ensures consistent indoor climate quality
- Energy-efficient interior and exterior lighting reduces maintenance costs and improves lighting quality and aesthetics
- Energy efficiency improvements and solar installations offset the production of 86,884 metric tons of CO_2 emissions over 25 years—equivalent to avoiding the carbon dioxide emissions of 16,613 cars over the life of the project
- Helps California meet the goals of AB 32, the Global Warming Solutions Act

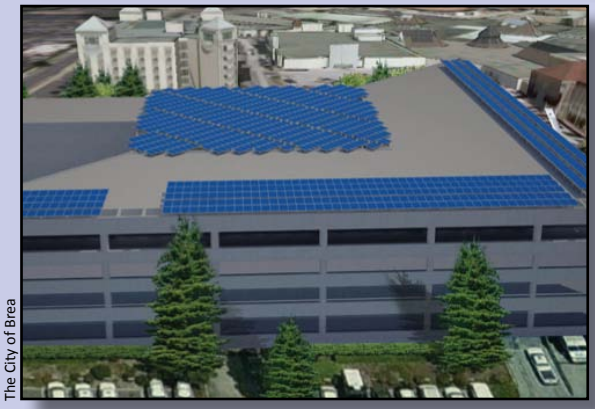
Green Life, Green Brea Award

In addition to its own efforts, Brea hopes to inspire other Brea businesses and organizations to enhance their own energy saving practices. In an effort to encourage such efforts, the City has developed the *Green Life, Green Brea Award*, which will be used to recognize exemplary achievement in energy conservation. The inaugural award will be presented to Beckman Coulter for the comprehensive renovation of its Brea facility.



The City of Brea

The City of Brea



The City of Brea

Encourage Mixed Use and Infill Development.
The City shall adopt a comprehensive revision to the City's General Plan and Zoning Code to maximize the potential for infill, mixed-use, and other creative residential development types. As specified in Appendix 7C of the Housing Element, the City will provide appropriate densities to accommodate the needs of all income groups in compliance with State law through the new land use designations. The City will establish development standards and processing requirements appropriate for encouraging mixed-use development within the Mixed-Use zone. The City will provide information on possible financial assistance, regulatory concessions or incentives such as density bonuses, reduced parking requirements and other modified development standards, fee waivers, fee deferrals, and assistance with on and off site improvements to the development community as part of the comprehensive housing resource.

City: Stanton — General Plan Element: Housing
Page: 7-8 — Policy: H-1.1.1 (e)

Streamline processing for approved green building.

City: Tustin — General Plan Element: Housing
Page: 77 — Policy: 6.5

Melanie Schlotterbeck

One public outreach and education program underway encourages residents to recycle used motor oil in La Palma using street banners.

Melanie Schlotterbeck

Remnants of Orange County's agricultural heritage can be seen in parks like this one, Tustin's Citrus Ranch Park.

Improve access to healthy and local food by encouraging community gardens, farmer's markets, and farm-to-school programs.

City: Laguna Hills — General Plan Element: Conservation and Open Space
Page: COS-29 — Policy: COS-2.6

Evaluate the establishment of an Agricultural Preservation Program to mitigate the long-term impact of agricultural preserve contract cancellations and to provide economic and technical assistance to County agricultural activities. Specifically, the program would establish a trust which could be used for grants, loans, research, and other appropriate items related to agricultural resources. The trust would be funded by contributions from agricultural preserve contract cancellation proponents.

County: Orange — General Plan Element: Resources
Page: VI-32 — Policy: 2

Implement economic programs that promote the long-term viability of designated agricultural parcels within the City.

City: San Juan Capistrano — General Plan Element: Conservation
Page: C-8 — Policy: 3.1

Melanie Schlotterbeck

Sea level rise threatens coastal areas, including residential and commercial properties, public infrastructure, and protected natural lands.

Reduce particulate emissions from paved and unpaved roads, parking lots, and road and building construction by 50% by 2000 as required by Southern California Air Quality Management District.

City: Huntington Beach General Plan Element: Air Quality
Page: AQ-15 Policy: AQ 1.8

Reduce vehicle emissions through traffic flow improvements and use of alternate fuel consuming vehicles.

City: Huntington Beach General Plan Element: Air Quality
Page: AQ-15 Policy: AQ 1.7

A target for the reduction of those sources of emissions reasonably attributable to the City's discretionary land use decisions and internal government operations. The reduction shall be based on returning to the 1990 emissions level for the City by 2020 or otherwise set at an emissions level for a year that reduces the City's contribution to global climate change as supported by the best available scientific modeling.

City: Laguna Hills General Plan Element: Conservation and Open Space
Page: A-22 Policy: COS-8

Support the development of alternative fuel infrastructure that is available and accessible to the public, and provide incentives for alternative fuel vehicles. (Imp 14.3, 14.5)

City: Newport Beach General Plan Element: Natural Resources
Page: 10-24 Policy: 6.8

Education on Mobile Source Emission Reduction Techniques

Provide education to the public on mobile source emission reduction techniques such as using alternative modes of transportation. (Imp 29.1)

City: Newport Beach General Plan Element: Natural Resources
Page: 10-24 Policy: 6.9

Source Emission Reduction Best Management Practices
Require the use of Best Management Practices (BMP) to minimize pollution and to reduce source emissions. (Imp 7.1)

City: Newport Beach General Plan Element: Natural Resources
Page: 10-24 Policy: 7.2

Incentives for Air Pollution Reduction
Provide incentives to promote siting or to use clean air technologies and building materials (e.g., fuel cell technologies, renewable energy sources, UV coatings, hydrogen fuel). (Imp 2.1, 6.1, 7.1)

City: Newport Beach General Plan Element: Natural Resources
Page: 10-24 Policy: 7.3

Use of Blowers
Consider eliminating the use of leaf blowers by the City, and discourage their use on private property. (Imp 8.2)

City: Newport Beach General Plan Element: Natural Resources
Page: 10-24 Policy: 7.4

Efficient Airport Operations
Work with John Wayne Airport to minimize air pollution generated by stationary and nonstationary sources. (Imp 14.3)

City: Newport Beach General Plan Element: Natural Resources
Page: 10-25 Policy: 9.2

Support alternative transportation modes, alternative technologies, and bicycle- and pedestrian-friendly neighborhoods to reduce emissions related to vehicular travel.

City: Orange General Plan Element: Natural Resources
Page: NR-4 Policy: 2.2

Evaluate the potential effects of climate change on the City's human and natural systems and prepare strategies that allow the City to appropriately respond and adapt.

City: Orange General Plan Element: Natural Resources
Page: NR-5 Policy: 3.1

Develop and adopt a comprehensive strategy to reduce greenhouse gasses (GHGs) within Orange by at least 15 percent from current levels by 2020.

City: Orange General Plan Element: Natural Resources
Page: NR-5 Policy: 3.2

Promote and establish modified work schedules which reduce peak period auto travel.

City: Placentia General Plan Element: Resource Management
Page: 6-27 Policy: RM-3.3

Increase public awareness regarding air quality, global climate change gases, implementation issues, reporting, and enforcement through internet resources, public presentations, booths, or kiosks.

City: Stanton General Plan Element: Regional Coordination
Page: 8-22 Action: RC-3.1.8 (a)

The Boeing Company Goes Green

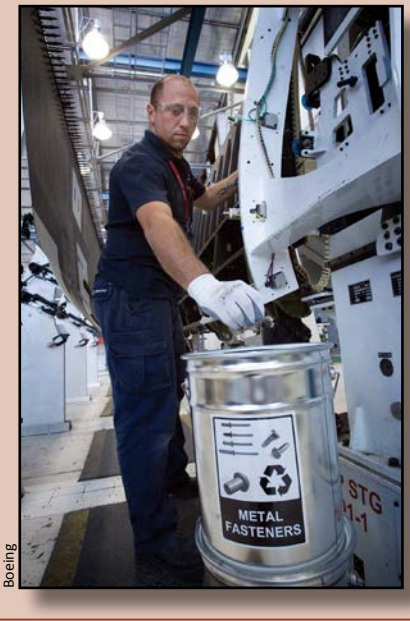
Boeing recognizes the importance of protecting our ecosystems and is developing innovative solutions to help address the global issues of pollution and climate change.

That is why we are designing environmentally progressive products, researching cleaner fuels, enhancing the global air traffic system to reduce the carbon footprint of air travel, and expanding into new markets where Boeing technologies show tremendous promise.

Long Beach, an ISO 14001 facility, is just one example of how Boeing is making steady progress to meet challenging environmental targets. Boeing employees, using Lean+ tools, are developing innovative ways to meet aggressive environmental targets inside our facilities.

Boeing is using, among other things, factory lighting controls and variable frequency drives to contribute $2.3 million in annual energy savings. In addition, by using dustless sanding equipment, improving management of frozen sealant and re-classifying and recycling waste, the site has reduced waste disposal costs by $43,000 per year.

These efforts are delivering results. At our major U.S. facilities between 2002 and 2009, we have reduced CO_2 emissions by 31 percent, energy consumption by 32 percent and hazardous-waste generation by 38 percent on a revenue-adjusted basis. Additional reductions for 2010 will be reported in May when Boeing releases its annual Environment Report.



Boeing

Operation of Boeing products represents our biggest potential impact on the environment and our greatest opportunity for a positive change. Commercial aviation accounts for two percent of man-made greenhouse gas emissions, and our industry is addressing this issue with credible actions.

Two new Boeing jetliners—the 747-8 and the 787—have entered flight test. Both airplanes will consume less fuel and produce a smaller carbon footprint than the jetliners they replace when they enter revenue service in 2011.

Together with leading researchers and industries, Boeing employees are advancing ways to develop sustainable biofuels made from algae and other feedstocks that reduce emissions over their life cycle without competing with food crops for land or water.

These are just a few ways Boeing is applying our technical leadership to enhance environmental performance across our industry.


Boeing


Boeing

Claire Schlotterbeck

Walkability features are an attractive amenity in this new residential development.

Encourage the development and integration of residential land uses into mixed-use development where appropriate.

City: Anaheim — General Plan Element: Land Use
Page: LU-38 — Policy: 2.1-4

Designate existing underutilized mid-block commercial uses for residential development or other alternate land uses, where appropriate.

City: Anaheim — General Plan Element: Land Use
Page: LU-38 — Policy: 3.1-1

Connect Downtown with The Platinum Triangle using the Olive Street railroad right-of-way for pedestrian, bicycle, and/or transit use.

City: Anaheim — General Plan Element: Circulation
Page: C-32 — Policy: 7.1-8

Encourage and provide incentives for the consolidation of parcels to create development sites that are large enough to support quality development.

City: Anaheim — General Plan Element: Land Use
Page: LU-39 — Policy: 3.2-3

Connect Downtown with The Platinum Triangle using the Olive Street railroad right-of-way for pedestrian, bicycle, and/or transit use.

City: Anaheim — General Plan Element: Land Use
Page: LU-51 — Policy: 13.1-10

Intensify land uses in close proximity to the Metrolink Station.

City: Anaheim — General Plan Element: Land Use
Page: LU-51 — Policy: 16.1-1

Intensify uses in close proximity to bus stops along La Palma Avenue, a future enhanced bus system route.

City: Anaheim
General Plan Element: Land Use
Page: LU-55
Policy: 16.1-3

Where feasible, encourage the actual or visual narrowing of streets through measures such as widened parkways, canopy trees, and sidewalk bulbs at the intersections.

City: Anaheim
General Plan Element: Community Design
Page: CD-11
Policy: 13.1-8

Melanie Schlotterbeck

Harry Otsubo Community Garden is a great example of how to get community involvement while growing food and flowers locally.

Locate parking in a neighborhood center behind or beside the center's buildings rather than in front of them to reduce the visual impact of surface parking lots, where practical. Massive, oversized parking lots should be avoided.

City: Anaheim — General Plan Element: Community Design
Page: CD-18 — Policy: 7.1-3

In vertical mixed-use, site retail or office uses on the ground floor, with residential and/or office uses above.

City: Anaheim — General Plan Element: Community Design
Page: CD-19 — Policy: 8.1-5

Design development with the pedestrian in mind by including wide sidewalks, canopy street trees, sitting areas, and clearly defined pedestrian routes.

City: Anaheim — General Plan Element: Community Design
Page: CD-20 — Policy: 8.1-5

Develop a strong pedestrian orientation throughout the area, including wide sidewalks, pedestrian paths, gathering places, ground-floor retail, and street-level landscaping.

City: Anaheim — General Plan Element: Community Design
Page: CD-37 — Policy: 15.1-4

Consolidate retail development in prime locations and replace declining mid-block commercial uses with well-designed residential uses that complement existing single-family neighborhoods per the Land Use Element.

City: Anaheim — General Plan Element: Community Design
Page: CD-39 — Policy: 17.1-3

Preferential parking for carpools.

City: Brea — General Plan Element: Community Resources
Page: A-15 — Policy: CR 13.1

Require the provision of secure bicycle parking (e.g., racks, lockers) as part of all future development projects for non-single family residential development.

City: Brea — General Plan Element: Circulation
Page: A-8 — Policy: CD 13.4

Consistent with land use policy, transition toward a mixed-use urban village that encompasses a range of housing types. A highly integrated mix of complementary land uses should provide jobs, housing, and services.

City: Brea
General Plan Element: Community Design
Page: 2-96
Heading: Unocal Research Center and Environs

Establish linkages between adjacent developments, emphasizing an interconnected network of attractive streets, sidewalks, and paths. New developments should extend the existing street grid.

City: Brea
General Plan Element: Community Design
Page: 2-94
Heading: East Brea Neighborhoods

Emphasize development focused toward the street, with parking located behind or next to buildings rather than in front.

City: Brea
General Plan Element: Community Development
Page: 2-104
Heading: Boulevard Corridors

Provide opportunities for the development of well planned and designed projects [that], through vertical or horizontal integration, provide for the development of compatible residential, commercial, industrial, institutional, or public uses within a single project or neighborhood.

City: Costa Mesa
General Plan Element: Housing
Page: HOU-90 & 91
Policy: HOU-3.2

Adopt a Planned Residential Development (PRD) overlay for the area to allow for more than one unit per lot as a means of encouraging new investment. Modify the PRD overlay zone to accommodate the area's smaller lot sizes.

City: Cypress
General Plan Element: Land Use
Page: LU-37
Policy: 8.1

Promote applicable portions of Calle Hermosa as a pedestrian-oriented mixed use district of small shops, professional services and upper level dwellings.

City: Dana Point
General Plan Element: Urban Design
Page: 42
Heading: Capistrano Beach Residence, Bullet 6

Locate higher density residential development close to public transportation.

City: Dana Point
General Plan Element: Housing Strategy
Page: 2-9
Heading: Policies, 4th policy

Work with property owners of vacant commercially zoned property to develop their sites into appropriate, economically viable projects.

City: Fountain Valley
General Plan Element: Land Use
Page: 2-33
Policy: 5.1

Construct safe, separate, and convenient paths for bicycles and pedestrians to encourage these alternative forms of transportation.

City: Fountain Valley
General Plan Element: Circulation
Page: 3-23
Policy: 3.9.5

Melanie Schlotterbeck

This high density residential area is perfectly situated for the weekly Fullerton Farmer's Market and other community festivals with its open plaza.

Encourage infill development projects within urbanized areas that include [job] centers and transportation nodes.

City: Garden Grove
General Plan Element: Air Quality
Page: 8-4
Policy: 5.2

Require developers to include transit facilities, such as park-and-ride sites, bus benches, shelters, pads, or turn-outs, in their developmental plans, where feasible as specified by the City's TDM ordinance.

City: Huntington Beach
General Plan Element: Circulation
Page: CE-20
Policy: CE 3.2.1

Melanie Schlotterbeck

The beautiful downtown of Rancho Santa Margarita offers pedestrian and bike-friendly opportunities with mixed parking options.

Require a system of bicycle trails, both on- and off-street, in each planning area. Such trails shall be linked to the system shown in Figure B-4. The on-street trails shall be designed for the safety of the cyclist.

City: Irvine General Plan Element: Circulation
Page: B-15 Policy: B-4(b)

Require bicycle trail linkages between residential areas, employment areas, schools, parks, community facilities, commercial centers, and transit facilities.

City: Irvine General Plan Element: Circulation
Page: B-15 Policy: B-4(d)

Require that a percentage of required parking spaces in new developments be set aside for bicycles.

City: La Habra General Plan Element: Transportation
Page: 55

Quality urban design using sustainable principles will improve the character of the area and enhance the identity of the City. Gathering places will enrich the community and provide social opportunities. Existing residential neighborhoods will be preserved and respected, while greater connectivity will promote walking from nearby neighborhoods to walk to Alicia Gateway.

City: Laguna Hills General Plan Element: Land Use
Page: LU-21 Heading: Alicia Gateway

Bring commercial buildings close to the street, in appropriate areas, to create a livelier pedestrian realm that encourages window shopping and increased interaction.

City: Laguna Hills General Plan Element: Land Use
Page: LU-31 Policy: 1.5

Preserve the distinctive character of residential neighborhoods by applying adopted design standards to new renovation projects.

City: Laguna Hills General Plan Element: Land Use
Page: LU-31 Policy: 2.1

Glumac's Office of the Future

Glumac is one of the country's leading sustainable engineering firms and its Irvine office was bestowed an Office of the Future recognition because of the innovative MEP design by Southern California Edison. The Office of the Future program, administered by the New Buildings Institute, is a program Southern California Edison participates in with seven other public utilities around the country to experiment with and study new technologies, create energy efficient office spaces, and promote these technologies to other clients. The new Glumac Orange County office has been recognized as the very first such space in the country to be in the program because of the cutting edge lighting and the controls, along with the HVAC controls and monitoring capabilities. Glumac hopes to promote these technologies to our clients and others to improve energy efficiency in other spaces on a local and national level.

Architect: Gensler
MEP Engineer: Glumac
Lighting Designer: Glumac
Commissioning Agent: Glumac
LEED Consultant: Glumac
General Contractor: Howard Building Corporation

Notable Features:

- All lighting, receptacle, and process loads in space submetered to provide real-time logging with trending capabilities
- No overhead lighting in most of open office area. Using task ambient lighting to light area at only 0.6 watts/sf on paper
- Actual metering of lighting shows that the entire office is using 0.28-0.35 watts/sf (Over 70% below Title-24!)
- All lighting in the space controlled by occupancy sensors
- All lighting within view of windows controlled by dimmable daylight harvesting controls
- Wireless, batteryless lighting and HVAC controls in the open office
- Lighting occupancy sensors integrated with HVAC controls to reduce energy consumption when nobody is in the office
- Rapidly renewable bamboo and wheatboard millwork
- 100% of the energy used in this space is offset by purchased renewable energy
- 24 foot wide glass garage door


Glumac


Glumac


Glumac

The City will adopt a new neighborhood mixed use designation and zone district that will promote the development of vertical and horizontal mixed use. Neighborhood mixed use will create a moderate density center and gathering place in key, centrally located areas within Laguna Hills. This designation/district will promote a mix of retail, housing, and office uses; walkable connections, plazas, and green space for community gathering; high quality design and architecture; orientation of buildings toward the street and pedestrians; and accessibility to transit. Allowed uses would include commercial retail, office, and residential, while prohibiting stand-alone residential.

City: Laguna Hills General Plan Element: Land Use
Page: A-42 Policy: H-8

Incorporate open spaces, plazas, and outdoor dining areas into new development and redevelopment to provide visual relief and community gathering spaces.

City: Laguna Hills General Plan Element: Land Use
Page: LU-33 Policy: 3.4

Construct sidewalks of adequate width along El Toro Road between Moulton Parkway and Paseo de Valencia, possibly as part of a multi-purpose trail, and along Moulton Parkway between El Toro Road and Calle Aragon.

City: Laguna Woods General Plan Element: Circulation
Page: C-24 Policy: III.B.1

Maintain and enhance infrastructure to promote alternative vehicle access where feasible.

City: Laguna Woods General Plan Element: Circulation
Page: C-25 Policy: III.C

Adequately illuminate and landscape City sidewalks and public areas to encourage pedestrian-oriented activities.

City: Los Alamitos General Plan Element: Circulation
Page: 5-3 Policy: 5-4.2

Retain and maintain the quality and health of existing landscape in the public open spaces (sidewalks, alleys, parks, civic and cultural facilities, and at schools).

City: Los Alamitos General Plan Element: Conservation
Page: 2-5 Policy: 2-6.1

Provide safe and efficient facilities for pedestrians and bicyclists, integrating these with the County-wide system.

City: Los Alamitos General Plan Element: Conservation
Page: 2-2 Policy: 2-2.3

Melanie Schlotterbeck

Garden Grove has several new high density residential projects located within walking distance of many amenities and shopping areas.

Plan and provide a pedestrian network that links residential, employment, schools, and commercial facilities to public sidewalks and bus stop locations.

City: Mission Viejo
General Plan Element: Circulation
Page: 15
Goal: 16

Require new development to dedicate or reserve easements for bicycle, riding, and hiking trails to complete trails networks as identified on city, county, and regional master trail plans.

City: Mission Viejo
General Plan Element: Circulation
Page: 15
Policy: 17.4

In addition to the future residential sites identified within the General Plan update, all future residential development citywide would be subject to the City's Inclusionary Housing Program, which establishes a goal that 15 percent of all new units be affordable to very low-, and low-, and moderate-income households.

City: Newport Beach
General Plan Element: Housing
Page: 5-65
Heading: Year 2000-2008 Housing Plan, Quantified Objectives

Melanie Schlotterbeck

These affordable housing units in Laguna Beach offer appealing, context sensitive architecture in close proximity to the downtown.

Provide for walkable neighborhoods to reduce vehicle trips by siting amenities such as services, parks, and schools in close proximity to residential areas. (Imp 1.2, 2.1)

City: Newport Beach — General Plan Element: Natural Resources
Page: 10-23 — Policy: 6.1

Pedestrian Connectivity

Link residential areas, schools, parks, and commercial centers so that residents can travel within the community without driving. (Imp 16.11, 20.1)

City: Newport Beach — General Plan Element: Circulation
Page: 7-21 — Policy: CE 5.1.2

Pedestrian Improvements in New Development Projects

Require new development projects to include safe and attractive sidewalks, walkways, and bike lanes in accordance with the Master Plan, and, if feasible, trails. (Imp 16.11)

City: Newport Beach — General Plan Element: Circulation
Page: 7-22 — Policy: CE 5.1.3

Mixed-Use Vertical (MU-V)

The MU-V designation is intended to provide for the development of properties for mixed-use structures that vertically integrate housing with retail uses including retail, office, restaurant, and similar nonresidential uses. For mixed-use structures, commercial uses characterized by noise, vibration, odors, or other activities that would adversely impact on-site residential units are prohibited. Sites may also be developed exclusively for retail or office uses in accordance with the CN, CC, CG, or CO-G designations.

Mixed-Use buildings: floor area to land ratio of 1.5; where a minimum floor area to land ratio of 0.35 and maximum of 0.5 shall be used for nonresidential purposes and a maximum of 1.0 for residential.

Nonresidential buildings: floor area to land area ratio of 0.75.

City: Newport Beach — General Plan Element: Land Use
Page: 3-13 — Heading: Mixed Use Districts

Mixed-Use Horizontal (MU-H)

The MU-H designation is intended to provide for the development of areas for a horizontally distributed mix of uses, which may include general or neighborhood commercial, commercial offices, multi-family residential, visitor-serving, and marine-related uses, and/or buildings that vertically integrate residential with commercial uses.

City: Newport Beach — General Plan Element: Land Use
Page: 3-14 — Heading: Mixed Use Districts

Land Use Densities Supporting Public Transit

Accommodate residential densities sufficient to support transit patronage, especially in mixed use areas such as the Airport Area. (Imp 2.1)

City: Newport Beach General Plan Element: Circulation
Page: 7-20 Policy: CE 4.1.4

Promote targeted development of mixed-use, transit-oriented development surrounding the Santa Fe Depot to achieve development intensities compatible with the fabric of Old Towne.

City: Orange General Plan Element: Land Use
Page: LU-7 Policy: 5.1

Encourage linkage in and around mixed-use areas using a multi-modal circulation network, particularly transit, pedestrian sidewalks, paths and paseos, and bicycle and trail systems.

City: Orange General Plan Element: Land Use
Page: LU-5 Policy: 2.6

Ensure that the architecture, landscape design, and site planning of mixed-use projects are of the highest quality, and that they emphasize a pedestrian orientation and safe, convenient access between users.

City: Orange General Plan Element: Land Use
Page: LU-5 Policy: 2.7

Ensure that adequate gathering areas or plazas are incorporated within mixed-use projects and areas to allow for social interaction and community activities.

City: Orange General Plan Element: Land Use
Page: LU-5 Policy: 2.8

Encourage mixed-use development to include ground floor retails.

City: Orange General Plan Element: Land Use
Page: LU-5 Policy: 2.9

Develop additional sensitively designed public parking throughout Old Towne.

City: Orange General Plan Element: Land Use
Page: LU-7 Policy: 5.4

Ensure that roadway improvements within Old Towne are designed to promote walkability ad a safe pedestrian environment.

City: Orange General Plan Element: Land Use
Page: LU-7 Policy: 5.7

Melanie Schlotterbeck

This wooden fence adds charm and character to the Laguna Hills Community Center and Sports Complex and separates a busy street from the parking lot.

Promote attractive and safe pedestrian access between the Santa Fe Depot and the Plaza.

City: Orange
General Plan Element: Land Use
Page: LU-7
Policy: 5.9

Ensure that new development is compatible with the style and design of established structures and the surrounding environment.

City: Orange
General Plan Element: Land Use
Page: LU-8
Policy: 6.1

In areas where residential uses about commercial or industrial land uses, use buffering techniques to improve compatibility. Such techniques include the use of setbacks, screening, soundwalls with pedestrian access, and appearance standards.

City: Orange
General Plan Element: Land Use
Page: LU-8
Policy: 6.2

Melanie Schlotterbeck

Projects are now leaving parking lots unpaved to allow rainwater to recharge the aquifer, like this scene at Aliso & Wood Canyons Regional Park.

Establish and maintain greenways, and pedestrian and bicycle connections that complement the residential, commercial, and open space areas they connect.

City: Orange
General Plan Element: Land Use
Page: LU-8
Policy: 6.3

Enhance the walkability of both new and current development.

City: Orange General Plan Element: Land Use
Page: LU-8 Policy: 6.6

Maximize landscaping along streetscapes and within development projects to enhance public health and environmental benefits.

City: Orange General Plan Element: Land Use
Page: LU-8 Policy: 6.8

Enhance and encourage provision of convenient and attractive transit amenities and streetscapes to encourage use of public transportation (e.g., benches, trash cans, shelters, and lighting.)

City: Orange General Plan Element: Circulation & Mobility
Page: CM-6 Policy: 3.2

Require incorporation of transit-oriented design features within major commercial and employment areas as well as in medium density residential and mixed-use development areas.

City: Orange General Plan Element: Circulation & Mobility
Page: CM-7 Policy: 3.3

Install racks and safe storage facilities at parking areas for City facilities, as appropriate, and encourage incorporation of such facilities within privately-developed projects.

City: Orange General Plan Element: Circulation & Mobility
Page: CM-7 Policy: 4.2

Provide lighting, landscaping, street trees, and other appropriately scaled streetscape features that accommodate all users on commercial corridors. Where appropriate, lighting should be scaled for autos as well as pedestrians.

City: Orange General Plan Element: Circulation & Mobility
Page: CM-8 Policy: 6.3

Explore infill development or mixed-use opportunities wherever possible as developable space becomes more limited.

City: Orange General Plan Element: Growth Management
Page: GM-6 Policy: 2.4

Encourage development that incorporates pedestrian- and transit-oriented design and landscape elements.

City: Orange
General Plan Element: Natural Resources
Page: NR-4
Policy: 2.8

Coordinate with Southern California Edison and other utilities to place utility lines underground wherever possible.

City: Orange
General Plan Element: Natural Resources
Page: NR-8
Policy: 7.4

Employ strategies and design features that will reduce the amount of impervious surface (i.e. paved area) within new development projects.

City: Orange
General Plan Element: Public Safety
Page: PS-4
Policy: 2.4

Support creation of safe routes that encourage children to walk or bike to schools and recreational facilities.

City: Orange
General Plan Element: Public Safety
Page: PS-4
Policy: 9.2

Continue to require utilities to be placed underground for new development.

City: Orange
General Plan Element: Infrastructure
Page: INF-6
Policy: 4.2

Emphasize street-oriented development, with parking located behind or next to buildings rather than in front. Encourage commercial activities such as sidewalk and outdoor dining.

City: Orange
General Plan Element: Urban Design
Page: UD-5
Policy: 1.5

Transform corridors such as Chapman Avenue, Main Street, The City Drive, and Katella Avenue into active, pedestrian-friendly streets that balance auto, transit, and pedestrian mobility. These streets should accommodate compact development that is oriented to the sidewalks to promote active street life.

City: Orange
General Plan Element: Urban Design
Page: UD-6
Policy: 2.1

Design future infill mixed-use projects in a manner that reduces or eliminates adverse effects on adjacent single-family residences.

City: Orange
General Plan Element: Urban Design
Page: UD-6
Policy: 2.4

Melanie Schlotterbeck

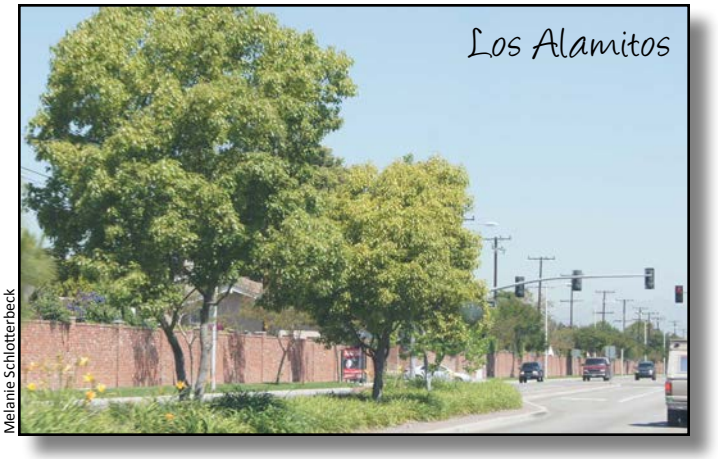
The Arbor Shopping Center in Lake Forest offers inviting tables and benches for store employees and shoppers.

Develop design standards that ensure the integration of urban parks and open spaces within mixed-use corridors by providing safe and comfortable pedestrian paths, paseos, and high-amenity streetscapes.

City: Orange
General Plan Element: Urban Design
Page: UD-6
Policy: 2.5

Create an attractive walkable pedestrian environment within and between commercial districts and neighborhoods through careful site planning, architectural design, and provision of pedestrian amenities such as sidewalks, benches, plaza areas, information kiosks, and other street furniture.

City: Orange
General Plan Element: Urban Design
Page: UD-7
Policy: 4.3



Los Alamitos is one of the few communities in Orange County with a tree ordinance, which adds character and a calming influence to the city's streets.

Encourage diverse commercial, housing, employment, and cultural opportunities throughout Old Towne, placing emphasis on context-sensitive mixed-use and pedestrian-oriented development patterns and adaptive re-use.

City: Orange General Plan Element: Urban Design
Page: UD-8 Policy: 5.1

Require infill development to be compatible with the scale and appearance of neighboring historic structures and to comply with all applicable historic preservation design and development standards and Secretary of the Interior standards.

City: Orange General Plan Element: Urban Design
Page: UD-8 Policy: 5.3

Encourage development of public spaces and plazas within commercial, mixed-use, and residential projects that can accommodate civic events and function as community gathering areas.

City: Orange General Plan Element: Urban Design
Page: UD-8 Policy: 6.3

Identify locations for potential transportation facilities that serve both commuters and residents.

City: Placentia General Plan Element: Land Use
Page: 2-28 Policy: LU-12.2

Encourage mixed use development within the Placita Santa Fe area. Provide incentives for senior citizen and multi-family housing.

City: Placentia General Plan Element: Land Use
Page: 2-21 Policy: LU-1.4

Reinforce a sense of form and positive civic image by preserving older trees where possible, by requiring integrated landscaping plans within areas of newer development, and by providing bicycle and walking trails that link cultural, educational, civic, and recreational uses.

City: Placentia General Plan Element: Open Space and Recreation
Page: 5-22 Policy: OSR-3.3

Enact and support policies and efforts that not only limit and decrease emissions within the boundaries of Stanton but also the region as a whole.

City: Stanton General Plan Element: Regional Coordination
Page: 8-17 Strategy: RC-3.1.1

Pursue smart growth principles by supporting the construction of higher density housing, affordable housing, and mixed use development (the vertical and horizontal integration of commercial and residential uses) in proximity to transit, services, shopping, schools, senior centers, and recreational facilities, where possible.

City: Tustin General Plan Element: Housing
Page: 54 Policy: 1.4

Provide incentives for mixed-use projects and exceptional design features contributing to emissions reductions.

City: Yorba Linda General Plan Element: Growth Management
Page: GM-14 Policy: 2.2

Claire Schlotterbeck

OCTA's transit stops offer community members an alternative to personal vehicle use.

Energy Policies

Environmental Nature Center

The Environmental Nature Center was the first building in Orange County to earn LEED Platinum certification.

Continue to provide free energy audits for the public.

City: Anaheim — General Plan Element: Green
Page: G-27 — Policy: 15.2-3

Pursue adoption of an Energy Conservation Program that requires the use of materials, devices, and measures to reduce energy consumption above the energy conservation requirements of Title 24. These measures may include built-in energy efficient appliances, automated controls for air conditioners and lighting, special sunlight-filtering window coatings or double-paned windows, light-colored roofing materials, and other means to reduce energy consumption and a structure's heating and cooling needs.

City: Costa Mesa — General Plan Element: Conservation
Page: CON-45 — Policy: CON-1C.3

Adopt Energy Efficiency Standards for new and remodeled buildings that exceed Title 24 building standards.

City: Garden Grove — General Plan Element: Conservation
Page: 10-7 — Implementation Strategy: CON-IMP-4A

Remove barriers for the use of solar energy for residential, commercial, industrial, or institutional uses.

City: Garden Grove — General Plan Element: Air Quality
Page: 8-5 — Implementation Strategy: AQ-IMP-6A

Reduce the amount of energy consumed by commercial uses by 15% by 2000 and 30% by 2010. Reduce the amount of energy consumed by residential use by 4.5% by 1994 and 30% by 2010 as required by Southern California Air Quality Management District.

City: Huntington Beach — General Plan Element: Air Quality
Page: IV-AQ-16 — Policy: AQ1.10

Incentives for Green Building Program Implementation

Promote or provide incentives for "Green Building" programs that go beyond the requirements of Title 24 of the California Administrative Code and encourage energy efficient design elements as appropriate to achieve "green building" status. (Imp 7.1)

City: Newport Beach
General Plan Element: Natural Resources
Page: 10-42
Policy: 24.3

Melanie Schlotterbeck

Along the 241 Toll Road emergency call boxes are solar powered.

Incentives for Provision of LEED Certified Buildings

Provide incentives for implementing Leadership in [Energy and Environmental] Design (LEED) certified building such as fee waivers, bonus densities, and/or awards recognition programs. (Imp 2.1, 7.1)

City: Newport Beach — General Plan Element: Natural Resources
Page: 10-42 — Policy: 24.4

New Methane Extraction Activities

Allow new methane extraction activities to reduce reliance on fossil fuels. (Imp 2.1)

City: Newport Beach — General Plan Element: Natural Resources
Page: 10-42 — Policy: 24.5

The City has also adopted a Green Building Program that offers incentives such as expedited processing and fee waivers when project proponents agree to incorporate environmentally sensitive and energy efficient construction techniques into their projects. Details regarding this program are posted on the City's website.

In 2008, the City Council also adopted a permanent fee waiver for the installation of solar and other energy-saving equipment. Details regarding this program are also found on the City's website. The fee waiver program applies to all building permits for solar photovoltaic, solar thermal systems, tankless water heaters, windows and/or doors containing glass, high-efficiency heating, ventilation and air conditioning (HVAC) systems. Expedited plan review and same-day inspection also accompany the fee waiver program. In addition, in April 2008, the City adopted a Solar Energy Education Program to complement its existing Green Building Program. The City also actively promotes and markets energy conservation and education in the community.

The City will also actively pursue grant and funding opportunities associated with federal and state Energy Efficiency and Conservation Block Grant programs.

City: Mission Viejo — General Plan Element: Housing
Page: 34-35 — Section: 3.3 Energy Conservation Opportunities

Coordinate with energy supplies to ensure adequate energy supplies to meet community needs, and to promote energy conservation and public education programs for that purpose.

City: Orange — General Plan Element: Natural Resources
Page: NR-4 — Policy: 2.7

Promote City operations as a model for energy efficiency and green building.

City: Orange — General Plan Element: Natural Resources
Page: NR-4 — Policy: 2.9

Reduce the roof temperature by specifying cool roof products that meet Energy Star levels of efficiency.

City: Westminster — General Plan Element: Housing
Page: 63 — Heading: Building Construction, Cool Roof

The ENC's LEED Platinum Center

The Environmental Nature Center's 8,500-square-foot learning center is the first building in Orange County to achieve the highest level of "green" building certification by the U.S. Green Building Council—LEED Platinum Certification. Visitors see examples of natural ventilation, renewable and recycled materials, reduced water usage, and on-site energy production in the form of solar and wind energy. Other sustainable features include light pollution reduction, water and energy use reduction, recycling, composting, and even green housekeeping methods.

With a 42 kilowatt photovoltaic array (solar panels) and wind turbine, the ENC produces more energy than it utilizes. To conserve energy, the building is equipped with sensors that monitor room occupancy and available daylight. The use of natural ventilation has eliminated the need for air conditioning.

The building is placed on an east-west axis to harvest natural daylight as well as cool ocean breezes. The use of low-emitting materials ensure the release of less harmful indoor air contaminants. The monitoring of $C0_2$ levels makes for a healthier indoor space.

The use of a white-colored roof and light-colored concrete decrease the impact of heat island effect. Bike racks, special parking spots for low emission vehicles and on-site showers encourage greener transportation. A stormwater management system controls runoff and removes pollutants.

The use of native, drought-tolerant landscaping has eliminated the need for an irrigation system. The building has waterless urinals, dual-flush toilets and low-flow fixtures saving an estimated 15,000 gallons of potable water a year.

Throughout the facility, recycled materials have been used extensively. The building insulation is composed of 85% recycled denim blue jeans and 15% cotton fibers that are rapidly renewable resources. The outside of the building is made of wood and plastic scraps that would normally end up in a landfill. The cabinets are made of numerous recycled materials including "wheatboard" which is composed of recycled wheat chaff. Over 82% of the construction waste was recycled and diverted from landfills. The ENC also composts and recycles on-site, and uses green cleaning products.

Environmental Nature Center

Environmental Nature Center

Environmental Nature Center

Melanie Schlotterbeck

This residential development offers a surprising and pleasant reprieve to the usual residential neighborhoods found throughout the County.

Mixed-use and commercial centers should be physically linked with adjacent residential neighborhoods.

City: Anaheim — General Plan Element: Land Use
Page: LU-41 — Policy: 5.1-3

We will remove regulatory barriers to the development of emergency and transitional housing for the homeless. We will assist developers of emergency and transitional housing in locating sites and streamline the approval and permitting process for this housing.

City: La Palma — General Plan Element: Housing
Page: 72 — Policy: 3.1

We will provide flexibility in development regulations to permit higher density affordable housing to be put into place in the city.

City: La Palma — General Plan Element: Housing
Page: 72 — Policy: 3.2

Assist 5 first-time homebuyers by providing tax credits.

City: La Palma — General Plan Element: Housing
Page: 75 — Policy Objective: 5

Utilize “right-of-first refusal” options to purchase moderate income housing units and extend their term of affordability. Preserve 46 units of moderate income housing.

City: La Palma — General Plan Element: Housing
Page: 77 — Policy Objective: 9

Maintain a land use structure that balances jobs and housing with available infrastructure and public and human services.

City: Orange — General Plan Element: Land Use
Page: LU-4 — Policy: 1.1

Encourage higher density residential and mixed-use projects to provide a community-based workforce and market for industrial and commercial areas.

City: Orange — General Plan Element: Economic Development
Page: ED-6 — Policy: 3.4

Encourage mixed-use developments to provide housing close to employment hubs for employees in all income segments and household types.

City: Orange — General Plan Element: Economic Development
Page: ED-9 — Policy: 7.2

The Kennedy Commission creates affordable home opportunities

The location of jobs and homes can significantly impact the quality of life for many residents in our community. Currently, Orange County ranks among the top ten least affordable metropolitan areas in the country.[151] Orange County's Fair Market rent for a two-bedroom apartment is $1,594 and the housing wage (hourly wage needed to afford a typical two-bedroom apartment) is over $30 per hour.[152] Between 2008 to 2018, it is projected that six out of the top ten occupations with the most job openings in Orange County will provide hourly wages of less than $11.50 or $23,916 a year.[153]

With high housing costs and significant lack of affordable homes, many workers and families, especially those who earn lower wages, struggle financially to live in the city they work in. Improving the proximity and location of jobs and homes in Orange County can decrease the cost of living for individuals and make it a more attractive place to work and conduct business. In particular, providing different housing types affordable to the earnings of workers of all income segments of the community will allow individuals more opportunities and options to live close by to where they work. Examples of affordable homes are shown below.

The Kennedy Commission

The Kennedy Commission

[151] National Low Income Housing Coalition. Out of Reach 2010. Retrieved 21 Apr 2011, from the Coalition's website: *http://www.nlihc.org/oor/oor2010/*.

[152] National Low Income Housing Coalition. Out of Reach 2010.

[153] California Employment Development Department. 2008-2018 Occupations with the Most Job Openings (Orange County), March 2009.

Melanie Schlotterbeck

Santa Ana offers this up-scale transit-oriented development just steps away from the Amtrak station.

Develop land assembly and circulation improvement strategies and incentives to facilitate mixed-use development at the intersection of State College Boulevard and Lincoln Avenue pursuant to the Land Use Plan.

City: Anaheim — General Plan Element: Land Use
Page: LU-41 — Policy: 6.1-1

Encourage infill development of vacant and underutilized property to minimize spatial gaps along the street; in addition, buildings that define the street and contribute to local identity should be retained.

City: Brea — General Plan: Appendix B - Urban Design Principles
Page: B-3 — Policy: CC 1-4

Actively pursue alternative uses for economically and fuctionally obsolete buildings.

City: Los Alamitos — General Plan Element: Economic Development
Page: 7-2 — Policy: 7-3.1

Promote re-use of functionally obsolete office buildings.

City: Los Alamitos — General Plan Element: Economic Development
Page: 7-3 — Policy: 7-4.1

Encourage transfers of development rights within areas designated Urban Mixed-use on the Land Use Policy Map to promote development of high-rise office and residential structures at compatible locations.

City: Orange — General Plan Element: Land Use
Page: LU-5 — Policy: 2.2

Encourage transfers of development rights within areas designated Neighborhood Mixed-use and Old Towne Mixed-use on the Land Use Policy Map to promote historic preservation and creation of open spaces accessible to the community.

City: Orange — General Plan Element: Land Use
Page: LU-5 — Policy: 2.3

Encourage mixed-use projects that contain a variety of compatible uses, and provide necessary supporting public and community facilities.

City: Orange General Plan Element: Land Use
Page: LU-5 Policy: 2.4

Preserve single-family neighborhoods in Placentia which are economically and physically sound.

City: Placentia General Plan Element: Land Use
Page: 2-21 Policy: LU-1.1

Allow for multi-family infill in designated areas to satisfy regional housing needs.

City: Placentia General Plan Element: Land Use
Page: 2-21 Policy: LU-1.2

Reduce the number of existing isolated commercial outlets through consolidation, where appropriate, and discourage small-scale strip commercial development.

City: Placentia General Plan Element: Land Use
Page: 2-22 Policy: LU-2.4

Discourage commercial and industrial enterprises that have significant adverse soil, air, water, or noise impacts.

City: Orange General Plan Element: Land Use
Page: LU-6 Policy: 3.4

Coordinate land use planning with anticipated future development of roadways and other transportation facility improvements as well as the expansion of commuter rail and bus service.

City: Orange General Plan Element: Circulation & Mobility
Page: CM-6 Policy: 2.4

Develop an inventory of sites that can attract and expedite the development of new businesses.

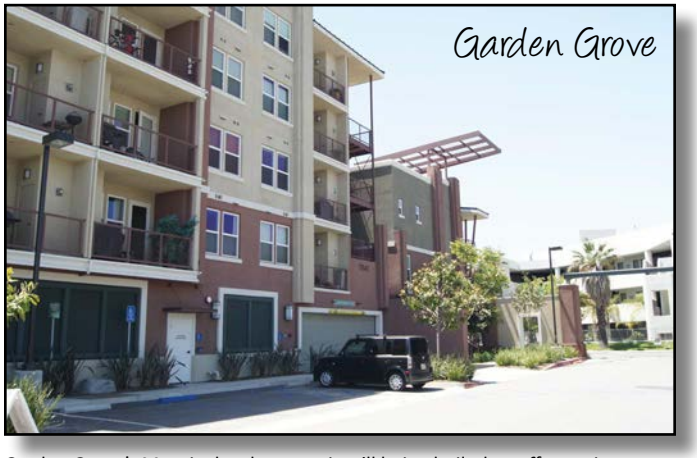
City: Placentia General Plan Element: Land Use
Page: 2-27 Policy: LU-11.1

Manage parking supply to discourage auto use, while ensuring that economic development goals will not be sacrificed.

City: Placentia General Plan Element: Resource Management
Page: 6-28 Policy: RM-3.9

Examine potential increases in residential density as part of the "Town Center—A New Beginning" implementation study as it specifically impacts the Center City Study Area (a portion of which is within the Town Center and South Central Redevelopment Project Areas), the Southern Gateway Study Area (a large portion of which is within the South Central Project Area), and the West Village Area generally located west of the SR-55 Freeway between McFadden Avenue and Main Street to assist the City in accommodating its housing needs.

City: Tustin
General Plan Element: Housing
Page: 54
Policy: 1.3



Melanie Schlotterbeck

Garden Grove's Mosaic development is still being built, but offers unique architecture and close proximity to grocery stores.

Open Space Policies

Melanie Schlotterbeck

The hills above Yorba Linda are protected as Chino Hills State Park and offer a respite from the sights and sounds of urban life.

Require that infill hillside development minimize alteration of the natural landforms and natural vegetation.

City: Anaheim — General Plan Element: Green
Page: G-8 — Policy: 1.1-1

Protect sensitive habitat areas and vegetation, particularly along Aliso Creek, within Aliso Woods, and within the Aliso and Wood Canyons Wilderness Park, by maintaining these resources as long-term open space.

City: Aliso Viejo — General Plan Element: Conservation/Open Space
Page: COS-6 — Policy: COS-3.2

Protect scenic landform features such as hillsides, ridgelines, canyons, and view corridors through designation of key areas as open space and use of other land use planning tools.

City: Aliso Viejo — General Plan Element: Conservation/Open Space
Page: COS-6 — Policy: COS-4.1

The City is committed to preserving its existing trees, replacing trees that are damaged or dying, and expanding urban forests in newer areas of Brea.

City: Brea — General Plan Element: Community Resources
Page: 4-41 — Heading: Chapter 4 – Urban Forest

Preserve and enhance existing wetlands areas.

City: Costa Mesa — General Plan Element: Conservation
Page: CON-46 — Policy: CON-1D.2

Continue to preserve natural open space, including restoration of the natural area of Talbert Nature Reserve [Fairview Park].

City: Costa Mesa — General Plan Element: Conservation
Page: CD-15 — Policy: CD-5.4

Preserve and enhance existing wetlands areas.

City: Costa Mesa
General Plan Element: Open Space and Recreation
Page: OSR-17
Policy: OSR-1A.12d

Prohibit the construction of any structure within 30 feet of any landmark tree.

City: Cypress
General Plan Element: Conservation, Open Space, Recreation
Page: COSR-24
Policy: 2.2

Melanie Schlotterbeck

Mission Viejo's Youth Athletic Park is a popular community asset.

Work with the owners of large, privately owned open space resources that are unique in nature and hard to replace.

City: Cypress — General Plan Element: Conservation, Open Space, Recreation
Page: COSR-27 — Policy: 9.1

Preserve natural open space in the Headlands area, especially along the coastal bluffs, and provide open areas integrated throughout the development.

City: Dana Point — General Plan Element: Land Use
Page: 18 — Policy: 5.3

Assure that adequate public recreational areas and public open space are provided and maintained by the developer as part of a new development.

City: Dana Point — General Plan Element: Land Use
Page: 21 — Policy: 8.2

Retain, maintain, protect, and enhance existing riparian habitat adjacent to drainage courses, channels, and creeks through methods such as, but not limited to, the establishment of buffer areas adjacent to such habitats. (Coastal Act/30231)

City: Dana Point — General Plan Element: Conservation/Open Space
Page: 7 — Policy: 1.5

Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible to mitigate the loss of any riparian habitat and any downstream impacts, and shall be limited to (1) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the floodplain is feasible and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat. (Coastal Act/30236)

City: Dana Point — General Plan Element: Conservation/Open Space
Page: 7 — Policy: 1.6

Maintain and, where feasible, restore the biological productivity and the quality of coastal waters, creeks, and groundwater, appropriate to maintain optimum populations of marine organisms and to protect human health. Measures including, but not limited to, minimizing the adverse effects of waste water discharges, controlling runoff, preventing the depletion of ground water supplies, preventing substantial interference with surface water flow, maintaining vegetation buffer areas protecting riparian habitats, minimizing alteration of natural streams, and street sweeping, shall be encouraged. (Coastal Act/30231)

City: Dana Point — General Plan Element: Conservation/Open Space
Page: 8 — Policy: 1.7

Environmentally sensitive habitat areas, including important plant communities, wildlife habitats, marine refuge areas, riparian areas, wildlife movement corridors, wetlands, and significant tree stands, such as those generally depicted on Figure COS-1, shall be preserved. Development in areas adjacent to environmentally sensitive habitat areas shall be sited and designed to prevent impacts which would significantly degrade those areas through such methods as, the practice of creative site planning, revegetation, and open space easement/ dedications, and shall be compatible with the continuance of those habitat areas. A definitive determination of the existence of environmentally sensitive habitat areas on a specific site shall be made through the coastal development permitting process. (Coastal Act/30230, 30240)

City: Dana Point — General Plan Element: Conservation/Open Space
Page: 11-12 — Policy: 3.1

Protect and enhance local beaches and wetlands because of their inherent environmental, ecological, and/or aesthetic contributions to the community through land use regulation.

City: Huntington Beach — General Plan Element: Recreation and Community Service
Page: RCS-15 — Policy: RCS 6.1.1

Work with the Laguna Canyon Foundation to include the Laguna Laurel and "Rossmoor Partners" properties as part of the Laguna Coast Wilderness Park.

City: Laguna Woods — General Plan Element: Open Space
Page: OS-4 — Policy: II.A.4

Conserve and protect important natural plant and animal communities, such as areas supporting rare and endangered species, riparian areas, wildlife movement corridors, wetlands, and significant tree stands through appropriate site planning and grading techniques, re-vegetation and soil management practices, and other resource management techniques.

City: Lake Forest — General Plan Element: Recreation and Resources
Page: 7 — Policy: 2.1

Conserve and protect important topographical features, watershed areas, and soils through appropriate site planning and grading techniques, re-vegetation, and soil management practices, and other resource management techniques.

City: Lake Forest — General Plan Element: Recreation and Resources
Page: 7 — Policy: 2.4

Acquisition for Open Space

Support active pursuit of the acquisition of Banning Ranch as permanent open space.

City: Newport Beach — General Plan Element: Land Use
Page: 3-72 — Policy: 6.3.2

Melanie Schlotterbeck

San Juan Capistrano is continuing to expand its natural resource lands and residents recently passed a city-wide measure to buy additional lands.

Eelgrass Protection

Avoid impacts to eelgrass (*Zostera marina*) to the extent feasible. Mitigate losses of eelgrass in accordance with the Southern California Eelgrass Mitigation Policy. Encourage the restoration of eelgrass in Newport Harbor at appropriate sites, where feasible. (Imp 21.1)

City: Newport Beach
General Plan Element: Natural Resources
Page: 10-28
Policy: NR 11.3

Create and maintain open space resources that provide recreational opportunities, protect hillside vistas and ridgelines, and conserve natural resources.

City: Orange
General Plan Element: Land Use
Page: LU-8
Policy: 6.4

Integrate natural amenities and connections, including waterways and wildlife corridors, within the design of urban and suburban spaces.

City: Orange
General Plan Element: Land Use
Page: LU-8
Policy: 6.7

Melanie Schlotterbeck

Stanton repurposed a utility line corridor for this linear urban park.

Recognize the value of natural and cultural resources in the undeveloped portions of the planning area.

City: Orange
General Plan Element: Land Use
Page: LU-8
Policy: 6.11

Explore opportunities to convert abandoned rail corridors into segments of the City's bikeway and pedestrian trail system.

City: Orange
General Plan Element: Circulation & Mobility
Page: CM-7
Policy: 4.6

Conserve open space through various public-private funding mechanisms and management strategies including, but not limited to, conservation easements.

City: Orange
General Plan Element: Natural Resources
Page: NR-4
Policy: 1.1

Actively seek out new public open space opportunities through land recycling.

City: Orange
General Plan Element: Natural Resources
Page: NR-4
Policy: 1.2

Protect the ecological integrity and overall health of Orange's watersheds.

City: Orange
General Plan Element: Natural Resources
Page: NR-5
Policy: 2.11

Protect in-stream habitat and natural stream and channel features.

City: Orange
General Plan Element: Natural Resources
Page: NR-5
Policy: 2.16

Preserve and protect native and habitat-supporting plant resources throughout the City.

City: Orange
General Plan Element: Natural Resources
Page: NR-6
Policy: 4.1

Reduce the impact of urban development on important ecological and biological resources.

City: Orange
General Plan Element: Natural Resources
Page: NR-6
Policy: 4.3

Repair or improve ecological and biological conditions in the urban and natural environments when reviewing proposals for site development and redevelopment, as well as public improvements.

City: Orange | General Plan Element: Natural Resources
Page: NR-6 | Policy: 4.4

Develop new public parks and open space resources by establishing incentives to use creative techniques available to property owners and developers that support public-private open space partnerships.

City: Orange | General Plan Element: Natural Resources
Page: NR-6 | Policy: 5.4

Preserve the scenic nature of significant ridgelines visible throughout the community.

City: Orange | General Plan Element: Natural Resources
Page: NR-8 | Policy: 7.1

Designate Santiago Canyon Road east of Jamboree Road as a City Scenic Highway to preserve the scenic nature of the open space adjacent to the road.

City: Orange | General Plan Element: Natural Resources
Page: NR-8 | Policy: 7.2

Maintain an accessible inventory of designated and potential historic resources.

City: Orange | General Plan Element: Cultural Resources
Page: CR-20 | Policy: 1.1

Provide incentives to encourage and support historic preservation.

City: Orange | General Plan Element: Cultural Resources
Page: CR-22 | Policy: 3.2

Identify, designate, and protect historically and culturally significant archaeological resources or sites.

City: Orange | General Plan Element: Cultural Resources
Page: CR-22 | Policy: 4.1

Recognize the importance of Santiago Creek as an archaeological resource.

City: Orange | General Plan Element: Cultural Resources
Page: CR-22 | Policy: 4.2

Continue to require new developments to provide recreational opportunities for their residents in accordance with the City's park standard, 4 acres of parkland per 1,000 residents.

City: Placentia | General Plan Element: Open Space and Recreation
Page: 5-20 | Policy: OSR-1.1

Evaluate and, where feasible, utilize the opportunities offered by abandoned road and railroad rights-of-way and similar environmentally impacted or unused linear open space to construct low maintenance greenbelts and multi-use trails.

City: Placentia | General Plan Element: Open Space and Recreation
Page: 5-20 | Policy: OSR-1.7

Ensure the preservation of riparian habitat and establish limits on the cleaning of natural vegetation from project sites.

City: Placentia | General Plan Element: Resource Management
Page: 6-31 | Policy: RM-10.7

Preserve ecological and biological resources by maintaining these resources as open space.

City: Rancho Santa Margarita General Plan Element: Conservation/Open Space
Page: 8 Policy: 1.1

Continue to preserve the coast live oak woodlands in the City by retaining the habitat as open space.

City: Rancho Santa Margarita General Plan Element: Conservation/Open Space
Page: 8 Policy: 1.2

Protect and enhance the creeks, lakes, and adjacent wetlands for their value in providing visual amenity, habitat for wildlife, and recreational opportunities.

City: Rancho Santa Margarita General Plan Element: Conservation/Open Space
Page: 8 Policy: 1.2

Require development proposals to include the assessment of potential migratory birds and raptor nests (in compliance with the Migratory Bird Treaty Act and the California Fish and Game Code.) Mitigation for the presence of active nests may be conducted in the following ways:

- Prior to the commencement of tree removal during the nesting season (February – July), all suitable habitat should be thoroughly surveyed for the presence of nesting birds by a qualified biologist. If any active nests are detected, the area shall be flagged and avoided until the nesting cycle is complete; or
- Tree removal and grading may be delayed until after the breeding season (August – January) to ensure that no active nests will be disturbed.

City: Rancho Santa Margarita General Plan Element: Conservation/Open Space
Page: 30 Policy: 1.2

Preserve important ecological and biological resources as open space.

City: San Juan Capistrano General Plan Element: Conservation
Page: 8 Policy: 2.2

Ensure that no buildings will encroach upon any ridgeline designated for preservation.

City: San Juan Capistrano General Plan Element: Conservation
Page: 9 Policy: 5.3

Preserve important viewsheds.

City: San Juan Capistrano General Plan Element: Community Design
Page: 5 Policy: 3.4

Preserve significant amounts of land and important natural features for open space.

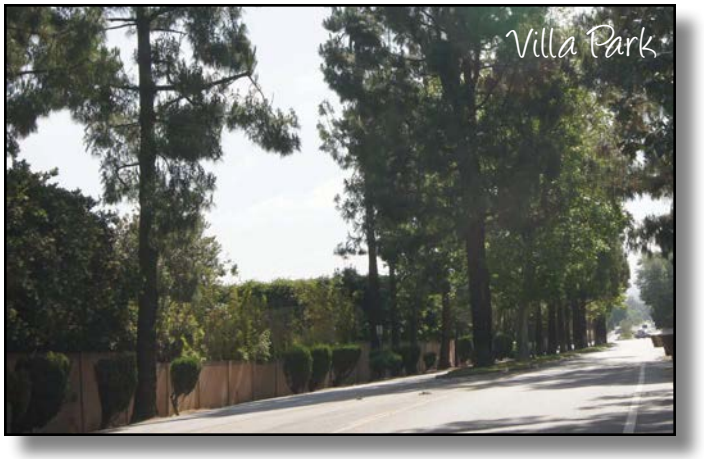
City: San Juan Capistrano
General Plan Element: Community Design
Page: 4
Policy: 1.1

Melanie Schlotterbeck

These coastal wetlands, in Seal Beach, offer a refuge for migratory birds on the Pacific Flyway.

It is recognized that the Seal Beach Naval Weapons Station, which contains large expanses of open, undeveloped land, constitutes a unique situation in a predominantly urban setting. It is a goal of the City to work and cooperate with federal interests to ensure preservation of this area's natural assets. Preserving the marshlands and wetlands in a pristine state is considered to be a matter of significance.

City: Seal Beach
General Plan Element: Land Use
Page: LU-34
Heading: Seal Beach National Wildlife Refuge/Wetlands



Melanie Schlotterbeck

Villa Park's tree-lined streets and medians offer both an aesthetic improvement and a traffic safety mechanism.

The maintenance and enhancement of the Pacific Electric Right of Way, its greenbelt, library, senior center, and the Red Car Museum shall be required in order to sustain and promote the numerous community amenities provided by the City.

City: Seal Beach — General Plan Element: Land Use
Page: LU-40 — Heading: Pacific Electric Right-of-Way Specific Plan

Designate the southern portion of the site for open space such as public parks, greenbelts, bike and nature trails, and other passive recreational uses.

City: Seal Beach — General Plan Element: Land Use
Page: LU-40 — Heading: Los Angeles Department of Water and Power Site Specific Plan

Protect sensitive receptors by creating an urban tree-planting program to plant trees that remove pollutants from the air or provide shade that decreases the negative impacts of heat on the air.

City: Stanton — General Plan Element: Regional Coordination
Page: 8-18 — Policy Action: RC-3.1.2(c)

Inventory unique or significant tree stands, with particular attention given to the cedar stand, eucalyptus groves, and eucalyptus windrows in East Tustin. Develop standards to retain or incorporate the eucalyptus windrows and groves into development plans where feasible. The redwood/sequoia stand has been retained within a park site and integrated into the park design.

City: Tustin — General Plan Element: Conservation, Open Space and Recreation
Page: 15 — Policy: 7.1

Conserve important plant communities and wildlife habitats, such as riparian areas, wildlife movement corridors, wetlands, and significant tree stands through the practice of creative site planning, revegetation, and open space easements/dedications.

City: Tustin — General Plan Element: Conservation, Open Space and Recreation
Page: 16 — Policy: 7.2

Protect significant groundwater recharge areas to ensure continued recharge of local groundwater basins.

City: Villa Park — General Plan Element: Open Space
Page: V-8 — Policy: OS/C #7

Preserve a continuous open space corridor along the Santa Ana River in order to maintain animal migration opportunities and preserve natural and recreational resource values.

City: Yorba Linda — General Plan Element: Recreation and Resources
Page: RR-14 — Policy: 9.5

Protect sensitive wildlife and plant life communities.

City: Yorba Linda | General Plan Element: Recreation and Resources
Page: RR-15 | Policy: 10.3

Preserve sensitive open space areas within the City.

City: Yorba Linda | General Plan Element: Land Use
Page: LU-15 | Policy: 9.1

Protect the scenic and visual qualities of hillside areas and ridgelines.

City: Yorba Linda | General Plan Element: Land Use
Page: LU-15 | Policy: 9.2

Preserve and protect the scenic and visual quality of canyon and hillside areas as a resource of public importance.

City: Yorba Linda | General Plan Element: Recreation and Resources
Page: RR-6 | Policy: 1.2

Preserve riparian areas in the Santa Ana River as sources of shelter and water for wildlife.

City: Yorba Linda | General Plan Element: Recreation and Resources
Page: RR-13 | Policy: 9.4

OCTA's Habitat Mitigation Program

The Orange County Transportation Authority's (OCTA) Mitigation and Resource Protection Program (Mitigation Program) provides for allocation of at least five percent ($243.5 million) of the total Renewed Measure M (M2) freeway budget for comprehensive environmental mitigation for the impacts from freeway improvements. The Mitigation Program was approved by Orange County voters under the M2 half-cent sales tax fortransportation improvements in 2006.

In August 2007, the OCTA Board of Directors (Board) approved a five-year M2 Early Action Plan, covering the years 2007 to 2012, to advance the implementation of several key M2 projects, including the freeway mitigation program.

This program offers higher-value environmental benefits such as habitat protection, connectivity, and resource preservation in exchange for streamlined project approvals for the 13 M2 freeway projects.

Environmental Oversight Committee

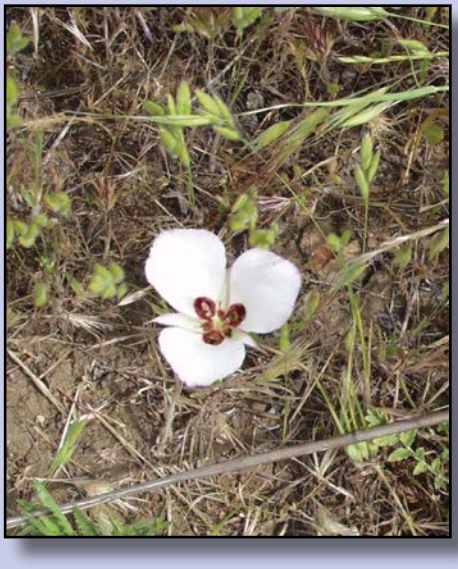
The Environmental Oversight Committee (EOC) is responsible for making recommendations to the Board on matters related to the Mitigation Program. Comprised of 12 members, the EOC has been meeting on a monthly basis since November 2007. This is a willing-seller program.

In January 2010, the EOC and the Board approved the Master Agreement and Planning Agreement to establish the process, roles, responsibilities, and commitments for the preparation of the Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP). The NCCP/HCP process examines habitat resources within broad geographic areas and identifies conservation and mitigation measures to protect habitat and species.

This process started in July 2010 and could take 18 to 24 months to complete, however, the Master Agreement includes an "advance credit" provision that could allow funds to be allocated prior to completion of the NCCP/HCP.

Funding Allocations

The Board has authorized spending $42.5 million for the protection of properties that closely align with freeway projects in the first funding cycle. Two properties (with more to follow) have already been preserved: Saddle Creek South (Trabuco Canyon) and Hayashi (Brea). Additional funding will be available in FY 15-16. In 2009, five restoration projects were approved, with a total expenditure of $5.5 million. A second tranche of restoration dollars will be available in FY 11-12.



Melanie Schlotterbeck

Hayashi

Claire Schlotterbeck

Silverado Canyon

Melanie Schlotterbeck

Melanie Schlotterbeck

The Orange County Fire Authority is a centrally-located regional fire service agency that services 22 cities and all of unincorporated Orange County.

Avoid development in areas susceptible to erosion and sediment loss.

City: Aliso Viejo — General Plan Element: Safety
Page: S-5 — Policy: S-1.1

Review any development application for shoreline construction with respect to the effects of beach encroachment, wave reflection, flood and wave hazards, public access and public recreation, shoreline sand supply, and aesthetics.

City: Seal Beach — General Plan Element: Safety
Page: S-83 — Policy: 6B

Institute a “High Risk Fire Hazard Area” and establish development standards which will reduce the risk for wildfires.

City: Yorba Linda — General Plan Element: Public Safety
Page: S-7 — Policy: 4.1

Melanie Schlotterbeck

Small solar panel projects can find their own usefulness.

Preferential and free parking for carpoolers and vanpoolers.

City: Irvine — General Plan Element: Energy
Page: I-5 — Policy: I-1(f), bullet 3

Promote energy conservation and recycling by the public and private sector in Lake Forest.

City: Lake Forest — General Plan Element: Recreation and Resources
Page: 9 — Policy: 7.7

Reduce the per capita production of solid waste in Lake Forest in concert with the County of Orange source reduction and recycling plans for reducing solid waste.

City: Lake Forest — General Plan Element: Recreation and Resources
Page: 8 — Policy: 6.1

Sustainable development practices require that any development of Banning Ranch achieve high levels of environmental sustainability that reduce pollution and consumption of energy, water, and natural resources to be accomplished through land use patterns and densities, site planning, building location and design, transportation and utility infrastructure design, and other techniques. Among the strategies that should be considered are the concentration of development, reduction of vehicle trips, use of alternative transportation modes, maximized walkability, use of recycled materials, capture and re-use of storm water on-site, water conserving fixtures and landscapes, architectural elements that reduce heat gain and loss, and preservation of wetlands and other habitats. (Imp 3.1, 4.1, 7.1, 16.8, 17.1, 19.1)

City: Newport Beach — General Plan Element: Land Use
Page: 3-76 — Policy: LU-6.4.10

Sustainable and Complete Community

Emphasize the development of uses that enable Newport Beach to continue as a self-sustaining community and minimize the need for residents to travel outside of the community for retail, goods and services, and employment. (Imp 1.1, 24.1)

City: Newport Beach — General Plan Element: Natural Resources
Page: 3.6 — Policy: LU 2.2

Overall Density and Housing Types

Require that residential units be developed at a minimum density of 30 units and maximum of 50 units per net acre averaged over the total area of each residential village. Net acreage shall be exclusive of existing and new rights-of-way, public pedestrian ways, and neighborhood parks. Within these densities, provide for the development of a mix of building types ranging from town homes to high-rises to accommodate a variety of household types and incomes and to promote a diversity of building masses and scales. (Imp 2.1, 3.1, 4.1)

City: Newport Beach — General Plan Element: Land Use
Page: 3-106 — Policy: LU 6.15.7

Require the installation of sidewalks with all new roadway construction and significant reconstruction of existing roadways.

City: Seal Beach — General Plan Element: Circulation
Page: C-55 — Heading: Bicycle and Pedestrian Facilities

Reduce the quantity of waste generated by the City of Stanton by increasing the City's role in the source reduction and recycling components of waste management.

City: Stanton — General Plan Element: Infrastructure and Community Services
Page: 5-18 — Strategy: ICS-3.1.1

The U.S. Green Building Council

The U.S. Green Building Council (USGBC) is on a mission to transform the way we build in a single generation.

Over the past ten years, USGBC's Leadership in Energy and Environmental Design (LEED) rating system has successfully taken the idea of building green from a niche market toward a mainstream international movement. Most people now realize the benefits of green buildings—employees working in green offices produce more and are absent less, kids in green schools have higher test scores, green homes are better constructed and healthier for their inhabitants.

USGBC's Orange County Chapter has 450 members and over 4,000 affiliates. Our members are actively shaping a more sustainable Orange County. In 2011, we will "green" a public school, mentor OC residents seeking green job skills, and educate commercial building owners and tenants about environmental mandates and the bottom-line benefits of leasing 'green.'

USGBC Orange County is changing lives, one building at a time.

The LEED Platinum "Future Building" in Rancho Cucamonga is shown right.

Melanie Schlotterbeck

Melanie Schlotterbeck

Melanie Schlotterbeck

Commuters and vacationers alike undoubtedly enjoy this mass transit line.

Participate in passenger rail planning efforts.

City: Anaheim	General Plan Element: Circulation
Page: C-31	Policy: 6.1-5

Support the development of a Bus Rapid Transit System in the City that provides transit access to commercial and office development opportunities.

City: Anaheim	General Plan Element: Land Use
Page: LU-40	Policy: 3.2-2

Provide convenient connections and shuttle services from commuter rail stations to employment centers and entertainment venues.

City: Anaheim	General Plan Element: Green
Page: G-20	Policy: 10.1-2

Reduce private sector and local government employee vehicle work trips by 30% by 2010 as required by the South Coast Air Quality Management District.

City: Huntington Beach	General Plan Element: Air Quality
Page: AQ-13	Policy: AQ 1.1

Require all businesses and multiple tenant centers with 100 or more employees to participate in a Transit Management Association or Organization.

City: Huntington Beach	General Plan Element: Air Quality
Page: AQ-13	Policy: AQ 1.1.2

Increase the proportion of vehicle work trips made by transit from 5.1% in 1984 to 19.3% in 2010, and increase the proportion of nonwork trips made by transit from 1.4% in 1984 to 3.8% in 2010, as required by South Coast Air Quality Management District.

City: Huntington Beach	General Plan Element: Air Quality
Page: AQ-13	Policy: AQ 1.2

Divert 2% of all trips of 3 miles or less to bicycle trips and 20% of all auto trips of ½ mile or less to walking.

City: Huntington Beach
General Plan Element: Air Quality
Page: AQ-15
Policy: AQ 1.6

Provide and maintain a non-vehicular component of the Lake Forest overall circulation system that supports bicycles, equestrians, and pedestrians and is coordinated with those of other service districts in Lake Forest and with adjacent jurisdictions.

City: Lake Forest
General Plan Element: Circulation
Page: 7
Policy: 4.2

Melanie Schlotterbeck

The pedestrian bridge offers safe crossing for transit-travellers and is adjacent to numerous apartments and businesses in the Placentia downtown.

Continue to provide and/or support alternative modes of transportation such as mass transit, dial-a-ride, rail systems, dedicated roadways, and conventional buses.

City: Los Alamitos General Plan Element: Conservation
Page: 2-2 Policy: 2-2.1

Parking Requirements for Pedestrian-Oriented and Local-Serving Uses

Consider revised parking requirements for small-scale neighborhood-serving commercial uses in areas that derive most of their trade from walk-in business, especially where on-street or other public parking is available. (Imp 2.1, 8.1, 8.2)

City: Newport Beach General Plan Element: Circulation
Page: 7-30 Policy: CE 7.1.9

Support Facilities for Alternative Modes

Require new development projects to provide facilities commensurate with development type and intensity to support alternative modes, such as preferential parking for carpools, bicycle lockers, showers, commuter information areas, rideshare vehicle loading areas, water transportation docks, and bus stop improvements. (Imp 16.8, 16.11)

City: Newport Beach General Plan Element: Circulation
Page: 7-29 Policy: CE 6.2.2

Implement the Transportation Demand Management (TDM) Ordinance, which promotes and encourages the use of alternative transportation modes, and provides those facilities such as bicycle lanes that support such alternate modes. (Imp 7.3, 16.8, 16.11)

City: Newport Beach General Plan Element: Natural Resources
Page: 10-23 Policy: 6.4

Plan, build, and maintain an integrated, hierarchical, and multi-modal system of roadways, pedestrian walkways, and bicycle paths throughout the City.

City: Orange General Plan Element: Circulation & Mobility
Page: CM-5 Policy: 1.1

Identify key intersections and streets with historical or projected traffic congestion problems and apply creative traffic management measures to improve overall circulation.

City: Orange General Plan Element: Circulation & Mobility
Page: CM-5 Policy: 1.2

Prohibit on-street parking where possible to reduce bicycle/automobile conflicts in appropriate target areas as recommended by the Bikeways Master Plan.

City: Orange — General Plan Element: Circulation & Mobility
Page: CM-5 — Policy: 1.4

Encourage the use of regional rail, transit, bicycling, carpools, and vanpools for work trips to relieve traffic congestion.

City: Orange — General Plan Element: Circulation & Mobility
Page: CM-6 — Policy: 2.6

Promote the expansion and development of alternative methods of transportation.

City: Orange — General Plan Element: Growth Management
Page: GM-5 — Policy: 1.7

Require developers of more than 100 dwelling units, or 25,000 square feet of non-residential uses to: a) demonstrate consistency between the local transportation facilities, services, and programs, and the regional transportation plan; and b) submit, as part of their development proposal (nonresidential), a Transportation System Management/Transportation Demand Management (TSM/TDM) plan which includes strategies, implementation programs, and an annual monitoring mechanism to ensure a reduction of single occupant automobile travel associated with development.

County: Orange — General Plan Element: Transportation
Page: IV-18 — Policy: 6.7

Require employment centers (e.g., shopping malls, business parks, etc.) with total employment of more than 100 to form Transportation Management Associations (TMA), or to be affiliated with an established TMA, to coordinate ridesharing for the purpose of reducing single-occupant vehicle trips to their site.

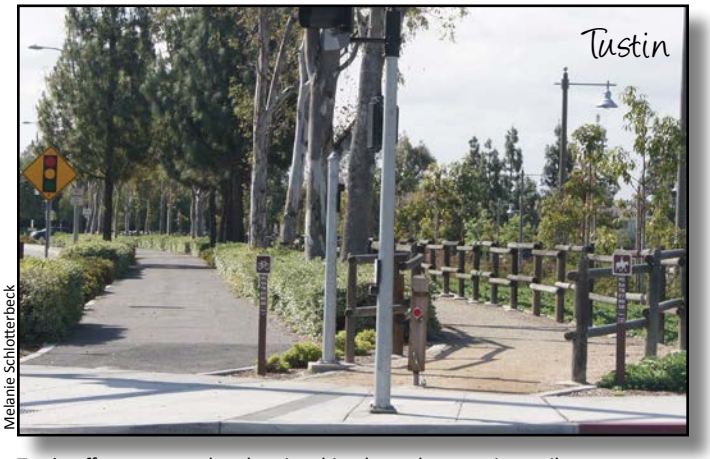
County: Orange — General Plan Element: Transportation
Page: IV-19 — Policy: 6.4

Identify transportation needs of senior citizens in the community.

City: Placentia — General Plan Element: Land Use
Page: 2-28 — Policy: LU-12.3

Support the development of a high-quality public transit system that minimizes dependency on the automobile.

City: Placentia — General Plan Element: Circulation
Page: 3-30 — Policy: CIR-3.2



Melanie Schlotterbeck

Tustin offers separated pedestrian, bicycle, and equestrian trails.

Implement adequate sidewalks and crosswalks to meet the required uses and needs, which serves to encourage alternative modes of transportation.

City: Placentia
General Plan Element: Circulation
Page: 3-30
Policy: CIR-3.5

Establish a Metrolink stop to serve both residents and commuters.

City: Placentia
General Plan Element: Circulation
Page: 3-31
Policy: CIR-3.10

Promote new development that is designed in a manner which facilitates provision or expansion of transit service, and provides non-automobile circulation within the development.

City: Tustin
General Plan Element: Circulation
Page: 15
Policy: 5.5

Melanie Schlotterbeck

Responding to the needs of its senior population, Laguna Woods offers a shade structure and seating at its bus stops.

Melanie Schlotterbeck

This apparent lake is actually a recharge basin that also doubles as wildlife habitat.

Specify and install water-conserving plumbing fixtures and fittings in public facilities such as parks, community centers, and government buildings.

City: Anaheim — General Plan Element: Green
Page: G-12 — Policy: 5.1-3

Protect the beneficial uses of ground and surface waters.

City: Brea — General Plan Element: Community Resources
Page: 4-46 — Policy: Goal CR-12

Protect ground water resources from depletion and sources of pollution.

City: Cypress — General Plan Element: Conservation, Open Space, Recreation
Page: COSR-24 — Policy: 1.3

Retain, protect, and enhance local drainage courses, channels, and creeks in their natural condition, where feasible and desirable, in order to maximize their natural hydrologic functioning so as to minimize adverse impacts from polluted storm water run-off. (Coastal Act/30231)

City: Dana Point — General Plan Element: Conservation/Open Space
Page: 6 — Policy: 1.1

Protect groundwater resources from depletion and sources of pollution.

City: Dana Point — General Plan Element: Conservation/Open Space
Page: 6 — Policy: 1.2

Conserve imported water by providing water conservation techniques, and using reclaimed water, water conserving appliances, and drought-resistant landscaping when feasible.

City: Dana Point — General Plan Element: Conservation/Open Space
Page: 6 — Policy: 1.3

Protect water quality by seeking strict quality standards and enforcement with regard to water imported into the County, and the preservation of the quality of water in the groundwater basin, streams, estuaries, and the ocean. (Coastal Act/30231)

City: Dana Point
General Plan Element: Conservation/Open Space
Page: 7
Policy: 1.4

Melanie Schlotterbeck

Westminster promotes water conservation through a street banner.

Review and revise planning and building codes to provide for new technologies (e.g., low flow fixtures, low flow commodes, drought tolerant landscaping, etc.).

City: Garden Grove — General Plan Element: Infrastructure
Page: 6-5 — Implementation Policy: INFR-IMP-1E

Develop new source of non-potable water for treatment and other non-potable uses.

City: Garden Grove — General Plan Element: Infrastructure
Page: 6-5 — Implementation Policy: INFR-IMP-1G

Continue to require the incorporation of water conservation features in the design of all new and existing uses, such as the use of native plants, low flow toilets, and water efficient appliances.

City: Huntington Beach — General Plan Element: Utilities
Page: U-1 — Policy: 1.3.2

Apply water conservation techniques/project “water budgets” to achieve a significant reduction over historic use and over average uses for the proposed type of development by the incorporation of water conservation devices, such as low-flow toilets, flow restriction devices, and water conserving appliances in new public and private development and rehabilitation projects.

City: Laguna Hills — General Plan Element: Conservation/Open Space
Page: A-18 — Implementation Policy: COS-1, #3

Encourage the use of drought tolerant landscapes in new developments and encourage the replacement of existing water consumptive landscapes.

City: Los Alamitos — General Plan Element: Conservation
Page: 2-1 — Policy: 2-1.1

Participate in and establish programs to increase public awareness of the dangers of water polluting activities such as dumping of oil, fuel and solvents, and excessive use of fertilizer and insecticides.

City: Los Alamitos — General Plan Element: Conservation
Page: 2-1 — Policy: 2-1.6

Promote the use of reclaimed water for groundskeeping in parks, golf courses, recreation areas, commercial and industrial uses, and schools.

City: Los Alamitos — General Plan Element: Conservation
Page: 2-2 — Policy: 2-1.7

All new commercial development shall install and utilize non-domestic water facilities for use in irrigation whenever feasible.

City: Mission Viejo — General Plan Element: Public Facilities
Page: 20 — Heading: Water Reclamation Standards

Wetland Protection

Recognize and protect wetlands for their commercial, recreational, water quality, and habitat value. (Imp 1.2, 2.1, 21.1)

City: Newport Beach — General Plan Element: Natural Resources
Page: 10-30 — Policy: NR 13.1

Services for Lower Income Households

New developments which provide housing for lower income households that help meet regional needs shall have priority for the provision of available and future resources or services, including water and sewer supply and services. (HE 2.2.8) (Imp 17.1)

City: Newport Beach — General Plan Element: Natural Resources
Page: 10-18 — Policy: NR 1.6

Recycled Water Use

Increase the use of recycled water in the City by continuing to provide financial incentives, staff assistance, and training opportunities for customers, and expand recycled water infrastructure and programs, when feasible. (Imp 17.1)

City: Newport Beach — General Plan Element: Natural Resources
Page: 10-1 — Policy: NR 2.1

Reduce the amount of water used for landscaping through the use of native and drought-tolerant plants, proper soil preparation, and efficient irrigation systems as parks are built or renovated.

City: Orange — General Plan Element: Natural Resources
Page: NR-4 — Policy: 2.3

Cooperate with water supply agencies to protect the quantity and quality of local groundwater supplies.

City: Orange — General Plan Element: Natural Resources
Page: NR-5 — Policy: 2.12

Reduce pollutant runoff from new development by requiring use of the most effective Best Management Practices (BMPs) currently available.

City: Orange — General Plan Element: Natural Resources
Page: NR-5 — Policy: 2.14

Melanie Schlotterbeck

Buena Park reduces debris entering our waterways and ocean by including a grate in front of the storm drain.

Promote water conservation programs aimed at reducing demands.

City: Orange
General Plan Element: Infrastructure
Page: INF-4
Policy: 1.3

Explore environmentally efficient infrastructure improvements such as the use of reclaimed water, maximizing percolation, and similar technologies.

City: Orange
General Plan Element: Infrastructure
Page: INF-4
Policy: 1.4

Protect ground water resources from sources of pollution.

City: Placentia
General Plan Element: Resource Management
Page: 6-26
Policy: RM-1.3

Conserve imported water by utilizing water conservation techniques, water conserving appliances, and drought-resistant landscaping.

City: Placentia
General Plan Element: Resource Management
Page: 6-26
Policy: RM-1.4

Claire Schlotterbeck

Mile Square Park in Fountain Valley demonstrates its water conservation through drought tolerant landscaping.

Encourage the use of biofiltration swales, watershed-scale retrofit, etc. where such measures are technically and economically feasible.

City: Placentia — General Plan Element: Resource Management
Page: 6-31 — Policy: RM-10.8

Conserve and protect watershed areas.

City: San Juan Capistrano — General Plan Element: Conservation
Page: 10 — Policy: 7.3

Develop constructed wetlands on Navy property to improve wastewater runoff quality as it drains to Anaheim Bay.

City: Seal Beach — General Plan Element: Land Use
Page: LU-45 — Heading: Seal Beach National Wildlife Refuge/Marshlands

Retain local drainage courses, channels, and creeks in their natural condition, where possible.

City: Yorba Linda — General Plan Element: Recreation and Resources
Page: RR-15 — Policy: 11.5

Creating Better Policies

Chapter 9

For planning to be meaningful, citizens must be involved in the process. Planners, regardless of their personal talents and capabilities, working in isolation and apart from the clients of planning, will not be able to craft plans communities will embrace.

– Michael Chandler
"The 21st Century Plan"
Planning Commissioners Journal Issue #31

This chapter focuses on transforming vague and hortatory (advisory) policies into more effective and enforceable policies. This project identified many well meaning Orange County city general plan policies —lacking in specificity, lacking in timing, etc. Strong policies use the verbs "shall" and "require."

One way to evaluate objectives is to follow the mnemonic: SMART.

- **S**pecific – Does the objective include enough specificity or is too general?
- **M**easurable – Does the objective have quantifiable metrics?
- **A**ttainable – Is the objective something that can be achieved or is it wishful thinking?
- **R**elevant – Is the objective relevant to city, time, economy, community, etc.?
- **T**ime-bound – Is there a timeframe by which the objective needs to be realized?

On the following pages are some sample policies to illustrate application of the "SMART" evaluation. They've been separated into three categories (good, better, best), so the evolution to a strong policy can be seen. The policies are presented to illustrate drafting technique and are not intended as specific policy recommendations. Specific land use policies must be tailored to the needs of each community by first defining the community's goals and values and then putting those goals and values into words using the SMART tools.

Administrative Policy

Good:
Work to transition the city fleet to less polluting cars.

Better:
Transition the city fleet to partial or zero emission vehicles.

Best:
Transition the entire city fleet to partial or zero emission vehicles by 2015.

Agricultural Policy

Good:
Promote the long-term viability of agricultural lands.

Better:
Promote the long-term viability of agricultural lands by allowing conversion of locally important agricultural land to non-agricultural uses only when there are no feasible agricultural uses.

Best:
Designate locally important agricultural land for agricultural uses and prohibit its conversion to non-agricultural uses unless the property owner provides evidence that continued agricultural use is a taking. Support agriculture through purchase of conservation easements from willing sellers, and other similar mechanisms. Adopt an agricultural mitigation ordinance that provides clear guidance for a property owner that provides evidence that an agricultural use is no longer economically viable and how to mitigate for the loss of any conversion.

Mixed-Use Development Policy

Good:
Encourage the development and integration of residential land uses into commercial and other non-residential development where appropriate.

Better:
Provide capacity for at least 20% of the City's new housing to be provided in connection with commercial and other non-residential uses no later than December 31, 2015 by (i) identifying zoning districts in which such use will be encouraged and (ii) setting standards for mixed use development in all zoning districts where it is allowed.

Best:
Ensure that beginning January 1, 2016 at least 20% of the City's new housing is provided in connection with commercial and other non-residential uses by requiring mixed use development in all mixed use districts and by limiting building permits for new non-mixed use residential projects to 80% of the permits granted for new residential housing each year.

Climate Change Policy

Good:
Work to reduce the City's greenhouse gas emissions.

Better:
The City shall reduce greenhouse gas emissions from City sources and other sources within the City consistent with AB 32 and Executive Order S-3-05.

Claire Schlotterbeck

Best:
The City shall reduce greenhouse gas emissions from City sources and other sources within the City to 1990 levels by 2020 and establish a policy and land use trajectory to reduce greenhouse gas emissions 80% below 1990 levels by 2050.

Energy Security Policy

Good:
Encourage the use of solar energy to supplement conventional heating systems.

Better:
Require the installation of solar energy or equivalent renewable energy systems to supplement conventional heating systems.

Best:
Require the installation of solar energy to supplement conventional heating systems equivalent to 20% of all new buildings and residences through both new construction and retrofits each calendar year.

Infill Development Policy

Good:
Encourage infill development near the city's downtown.

Better:
Inventory vacant and underutilized sites near the City's downtown no later than December 31, 2012 and encourage infill development of these sites.

Best:
Promote infill development of vacant and underutilized property near the city's downtown through incentives including by right development zoning to be adopted by December 31, 2012, streamlined permit assistance for qualifying projects, reduced fees, on-line site inventory, and the like.

Open Space Policy

Good:
Work to protect ridgetops as open space.
Better:
Prepare a ridgetop zoning ordinance prohibiting ridgetop development unless there are no feasible alternatives.

Best:
Purchase for conservation purposes all ridgetop lots at risk of development.

Safety Policy

Good:
Discourage homeowners from having dry brush and overhanging trees in High Risk Wildland Fire Areas.

Better:
Encourage homeowners to proactively remove dry brush and overhanging trees in High Risk Wildland Fire Areas.

Best:
Require all homeowners to create defensible space in High Risk Wildland Fire Areas.

Sustainable Development Policy

Good:
Encourage LEED certified buildings in the city.

Better:
Develop training, incentive, and regulatory programs sufficient to ensure that by 2013 at least 50% of all new construction in the City is LEED certified.

Best:
Require all new construction (over X s.f. or Y number of units) to be LEED certified or its equivalent.

Transportation Policy

Good:
Work to develop a Bus Rapid Transit System in the city.

Better:
Develop and adopt a plan for a Bus Rapid Transit System in the city.

Best:
Develop and implement a citywide Bus Rapid Transit System by 2020 that serves the city's most densely populated areas and employment centers.

Water Conservation and Water Quality Policy

Good:
Encourage businesses and homeowners to reduce water use.

Better:
Seek 20% reduction in per capita water use citywide.

Best:
Develop education and incentive programs to encourage businesses and homeowners to reduce water use by 20% by 2012 and require all new development to be water neutral through retrofits of existing structures by 2013.

Model Policies

Chapter 10

All my adjectives are exhausted.
– P.T. Barnum
of Yosemite
October 1968

In many ways the Land Use element is the most "basic" of all of the required elements. As such, the following "model" policies apply mostly to the land use element and many to the most important question of where growth should and should not be directed and what kind of growth is desired. These 15 model policies provide a starting point for other detailed and tailored policies, programs, and indicators necessary to guide each unique jurisdiction's future.

Location of Development

In identifying land necessary to accommodate new development, take into account the potential for infill first, existing lots of record, and resource values and infrastructure constraints. [For County General Plans: Work with cities in the County to ensure that development requiring municipal services occurs within cities and existing urban areas with first priority given to infill areas.]

Preserve a distinction between urban and rural areas. Direct new growth to areas with infrastructure committed to an urban level of development.

Promote infill and walkable communities by setting minimum density requirements, promoting mixed use, and focusing public infrastructure investments in these areas.

Conserve and enhance existing neighborhoods by establishing land use policy designations and incentives which direct intensive development investment pressure to boulevards and districts served by transit instead of existing neighborhoods not served by transit.

Preserve and value rural areas for working landscapes (e.g., farming, grazing, mining), natural resource protection (e.g., water recharge, ecosystem services), and open space recreation uses by requiring minimum parcel sizes large enough to support these uses. To the maximum extent feasible prohibit development in high risk areas including but not limited to flood areas, coastal areas subject to sea level rise, wildland fire areas, and areas where public water and sewer service cannot be provided.

Type of Development

Strive for jobs-housing match within the city [or, for County General Plans: within each of the major economic centers in the County] and within major development projects to improve quality of life, reduce household costs associated with travel, and reduce vehicle miles traveled. Jobs housing match means that housing stock is affordable to the workforce in and in the vicinity of the development project.

In approving new development, promote infill first while promoting socio-economic equity, protection of environmental resources, and encouraging efficient development patterns.

Transportation Choices

In approving new development, strive to ensure there is an option to safely walk, bicycle, or take public transit to school, work, and essential destinations (e.g., shopping, banking, recreation, etc.).

Place a high priority on investments underserved transportation infrastructure such as pedestrian and bike paths and transit centers and stops; and invest in additional roadway capacity only where there are no alternatives (e.g., Transportation Demand Management) available and failure to develop the capacity would cause significant adverse effects to air quality.

Infrastructure and Services

Provide adequate infrastructure and services for existing residents and businesses. Ensure that new development neither increases the infrastructure and public service costs for existing residents and businesses nor reduces the quality of service by any significant amount.

Provide for an adequate and sustainable water supply while protecting watersheds and the marine environment, including surface water, groundwater, and recharge areas.

Resource Protection

Protect identified resource rich and critical habitat areas through programs and implementing ordinances that establish funding for purchase or donation of these areas from willing sellers, transfer or purchase of development rights programs, funding measures, collaborations with land trusts and state agencies, use of private grants, endowments, and other means.

Certainty for New Development

Provide a clear statement of city [or county] land use values and policies to provide clarity in the permit processing system and to simplify review of projects that are consistent with the General Plan.

Green Building and Energy Efficiency

Strive for zero net energy use for new residential and commercial buildings and development projects. Adopt and maintain strong policies, programs, and ordinances to promote green practices including green building ordinances that call for adoption of energy efficiency standards for construction, new and remodeled buildings, as well as funding sources for retrofit of existing buildings.

Climate Change

Address climate change in land use and other policies to meet emissions reductions targets in AB 32 as well as locally adopted targets where applicable. Monitor local climate change indicators (sea level rise, precipitation, temperature, etc.) and plan for adaptation to changes as warranted.

Resource List

Appendix A

Knowing a great deal is not the same as being smart; intelligence is not information alone but also judgment, the manner in which information is collected and used.

— Dr. Carl Sagan (1934 - 1996)
American Astronomer

AB 32 and SB 375 Legal Analysis Record (Institute for Local Government)
http://www.ca-ilg.org/AB32-SB375LegalAnalysis

California at the Crossroads: Proposition 23, AB 32 and Climate Change (Berkeley Law Center for Law, Energy and the Environment)
http://www.law.berkeley.edu/files/CLEE-California_at_the_Crossroads.pdf

California Energy Commission, Public Interest Energy Research Climate Change Programs (California Climate Change Center)
http://www.energy.ca.gov/2009publications/CEC-500-2009-092/CEC-500-2009-092.PDF

California Land Use Planning Information Network (State of California)
http://www.ceres.ca.gov/planning/

The California Planner's Book of Lists (2011) (Governor's Office of Planning and Research)
http://www.opr.ca.gov/index.php?a=planning/publications.html#pubs-C

CEQA & Climate Change (California Air Pollution Control Officers Association)
http://www.capcoa.org/wp-content/uploads/downloads/2010/05/CAPCOA-White-Paper.pdf

CEQA Process Flow Chart (California Resources Agency)
http://ceres.ca.gov/ceqa/flowchart/

CEQA: The California Environmental Quality Act (California Natural Resources Agency)
http://www.ceres.ca.gov/ceqa/

A Clear Blue Future: How Greening California Cities Can Address Water Resources and Climate Challenges in the 21st Century (Natural Resources Defense Council and the Bren School of Environmental Science and Management)
http://www.nrdc.org/water/lid/files/lid_hi.pdf

Climate Change Scoping Plan: a Framework for Change (2008) (California Air Resources Board for the State of California)
http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf

Communities Tackle Global Warming: A Guide to California's SB 375 (Natural Resources Defense Council and California League of Conservation Voters)
http://www.nrdc.org/globalwarming/sb375/files/sb375.pdf

The Community Guide to the California Environmental Quality Act (Planning and Conservation League Foundation):
http://www.pclfoundation.org/events/ceqaguide.html

Density Guide for Affordable Housing Developers (Southern California Association of Non-Profit Housing)
http://www.scanph.org/files/Density%20Guide.pdf

Estimating the Potential Economic Impacts of Climate Change on Southern California Beaches (California Climate Change Center)
http://www.energy.ca.gov/2009publications/CEC-500-2009-033/CEC-500-2009-033-D.PDF

Facts About California Greenhouse Gas Emissions Inventory (California Environmental Protection Agency, Air Resources Board)
http://www.arb.ca.gov/cc/factsheets/ghginv.pdf

FAQs Collection and Summary for Policymakers, In: Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (Intergovernmental Panel on Climate Change)
http://www.ipcc.ch/publications_and_data/publications_ipcc_fourth_assessment_report_wg1_report_the_physical_science_basis.htm

Final Statement of Reasons for Regulatory Action: Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB 97 (California Natural Resources Agency)
http://www.ceres.ca.gov/ceqa/docs/Final_Statement_of_Reasons.pdf

Find Appellate Court Cases from California and elsewhere
http://scholar.google.com/

Form-Based Codes: Implementing Smart Growth (Local Government Commission)
http://www.lgc.org/freepub/community_design/factsheets/form_based_codes.html

General Plan Guidelines Update (Governor's Office of Planning and Research)
http://www.opr.ca.gov/index.php?a=planning/gpg.html

The Impacts of Sea-Level Rise on the California Coast (California Climate Change Center)
http://www.pacinst.org/reports/sea_level_rise/report.pdf

Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2007 (U.S. Environmental Protection Agency)
http://www.epa.gov/climatechange/emissions/usgginv_archive.html

LAFCOs, General Plans and City Annexations (Governor's Office of Planning and Research)
http://ceres.ca.gov/planning/lafco/lafco.htm

Land Use and the Environment (Institute for Local Government)
http://www.ca-ilg.org/landusepubs

The Local Climate Action Activist Toolkit: How to Cut the Carbon Footprint of New Development (Planning and Conservation League Foundation)
http://www.pclfoundation.org/publications/climatetoolkit.html

Measuring the Economic Value of a City Park System (The Trust for Public Land)
http://www.tpl.org/publications/books-reports/park-system-analysis/measuring-the-economic-value.html

Model Policies for Greenhouse Gases in General Plans (California Air Pollution Control Officers Association)
http://www.capcoa.org/wp-content/uploads/downloads/2010/05/CAPCOA-Model Policies-6-12-09-915am.pdf

Orange County Facts & Figures (2008) (Center for Demographic Research)
http://www.fullerton.edu/cdr/ocff.pdf

The Planner's Guide to Specific Plans (Governor's Office of Planning and Research)
http://ceres.ca.gov/planning/specific/

The Planning Commissioners Book (Governor's Office of Planning and Research)
http://ceres.ca.gov/planning/plan_comm/

The Planning Commissioners Handbook (Institute for Local Government)
http://www.ca-ilg.org/pch

Planning for a Better Future: California 2025 (Public Policy Institute)
http://www.ppic.org/content/pubs/report/R_610BKR.pdf

Population Trends Along the Coastal United States: 1980-2008 (National Oceanic and Atmospheric Administration)
http://oceanservice.noaa.gov/programs/mb/pdfs/coastal_pop_trends_complete.pdf

Public Transportation: Moving People Forward (American Public Transportation Association)
http://www.apta.com/resources/reportsandpublications/Documents/APTABrochure_v28%20FINAL.pdf

Public Transportation's Role in Responding to Climate Change (U.S. Department of Transportation)
http://www.fta.dot.gov/documents/PublicTransportationsRoleInRespondingToClimateChange2010.pdf

Quantifying Greenhouse Gas Mitigation Measures (California Air Pollution Control Officers Association)
http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf

Recommendations of the Regional Targets Advisory Committee (RTAC) Pursuant to Senate Bill 375 (California Air Resources Board)
http://www.arb.ca.gov/cc/sb375/rtac/report/092909/finalreport.pdf

Reinventing the General Plan (California Planning Roundtable)
http://reinventingthegeneralplan.org/

SB 375 Impact Analysis Report (Urban Land Institute)
http://www.uli.org/ResearchAndPublications/Reports/~/media/Documents/ResearchAndPublications/Reports/Sustainable%20Development/SB375ImpactAnalysisReport.ashx

State Clearinghouse Handbook (2009) (Governor's Office of Planning and Research)
http://www.opr.ca.gov/planning/publications/SCH_Handbook_2009.pdf

A Step by Step Tool Kit for Local Governments to Go Solar (Go Solar California)
http://www.GoSolarCalifornia.org

Sustainable Development (Urban Land Institute)
http://www.uli.org/ResearchAndPublications/Reports/Sustainable%20Development.aspx

Tools for Smart Infill
http://www.growsmartbayarea.org/heres_how/index.html

Western City (The League of Cities)
http://www.westerncity.com/Western-City/Land-Use-Planning/

What's the State of Your Air? (American Lung Association)
http://www.stateoftheair.org/

Acknowledgements

Appendix B

Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has.

– Margaret Mead (1907 - 1978)
American Anthropologist

This General Plan Resource Directory would not be possible without the dedicated members and volunteers that studied the General Plans of the County and all its cities, participated in Green Vision workshops, and assisted in reviewing and commenting on this Directory. We are also thankful for input provided by several of the cities that took time to review the Directory and provide substantive feedback.

Melanie Schlotterbeck

Volunteers

Thank you to the following volunteers for their outstanding work on the Directory:

- Meghan Barron
- Denny Bean
- Ilse Byrnes
- Jack Eidt
- Penny Elia
- Alexa Engelman
- Diane Etchison
- Shannon Forsman
- Sheri Hanizavareh
- Nathaniel Kane
- Manny Kiesser
- Taffy Kennedy
- Alex Koeberle
- Maya Kuttan
- Phil McWilliams
- Stephanie Pacheco
- Charlotte Pirch
- Sam Reynolds
- Daniel Ribeiro
- Theresa Sears
- Gloria Sefton
- Krista Sloniowiski
- Bob Smith
- Alyssa Tsuchiya

Acknowledgements

Friends of Harbors, Beaches, and Parks (FHBP) is grateful to Melanie Schlotterbeck for undertaking this tremendous effort in writing and designing this Directory. Her unrelenting vision of a useful document and her tenacity moved it forward. Her technical skills brought this Directory to print as part of our organization's Sustainability, Education, and Implementation Campaign.

Author

Melanie Schlotterbeck is a consultant to environmental non-profits and works as the Green Vision Project Coordinator for Friends of Harbors, Beaches, and Parks.

Contributors

FHBP also gratefully recognizes the contributions of our reviewers, researchers, and technical experts:

Claire Schlotterbeck, a consultant to FHBP and founder of Chino Hills State Park provided edits and comments on the Directory as well as the initial inspiration to create it.

Sandy Goldberg, with the California Attorney General's Office, has been tracking exceptional policies throughout the state and sent FHBP a CD of her research.

Ezequiel Gutierrez, Jr. provided comments and edits to this Directory. His work with non-profits, affordable housing coalitions, experience as an attorney and urban planner all played into his great insights.

Richard Taylor, a partner at Shute, Mihaly, and Weinberger, offered extensive comments and narrative edits for the General Plan, CEQA, SB 375 and Model Policies Chapters. He helped with many of the citations and resources as well.

Terry Watt a consulting urban planner with FHBP wrote some of the more technical sections, introductions to innovative policies, and urged inclusion of innovative policies from around the state. Without her expertise and connections this Directory would not have reached completion.

We also wish to acknowledge Jean Watt and Jim Carr for their proofreading and suggestions.

A Special Thanks to Boeing

This Directory is being published and distributed through the generous support of the Boeing Community Charitable Contributions. Their commitment to sustainable communities and a healthy environment made this publication possible.

Other Model Policies

Chapter 11

There is nothing wrong with change, if it is in the right direction.

— Winston Churchill (1874 - 1965)

British Politician and Statesmen

The following pages contain excerpts of goals, policies, implementation strategies, and progress indicators from exemplary California planning documents, factsheets, and one lawsuit settlement. These are intended as a checklist of sorts that cities and counties engaged in General Plan updates can consider for tailoring to their own unique circumstances where applicable.

Sacramento decision makers and agencies help formulate new policies that can lead to more sustainable communities.

Residential Buildings

Newly constructed residential buildings shall achieve higher energy efficiency levels than the requirements of the Building Energy Efficiency Standards (Title 24, Part 6) in effect at the time the application for a building permit is submitted.

For building permits submitted before August 1, 2009 the applicant is required to meet either of the following two tiers of energy efficiency:

- Tier I – 15 percent reduction in the residential building's combined space heating, space cooling, and water heating energy compared to the 2005 Title 24 Standards.
- Tier II – 35 percent reduction in the residential building's combined space heating, space cooling, and water heating energy and 40 percent reduction in the residential building's space cooling energy compared to the 2005 Title 24 Standards.

For building permits submitted on or after August 1, 2009, the applicant is required to meet either of the following two tiers of energy efficiency:

- Tier I – 15 percent reduction in the residential building's combined space heating, space cooling, and water heating energy compared to the 2008 Title 24 Standards.
- Tier II – 30 percent reduction in the residential building's combined space heating, space cooling, and water heating energy and 30 percent reduction in the residential building's space cooling energy compared to the 2008 Title 24 Standards.

The Tier I level is a minimum condition for participation. Tier II is the Energy Commission's preferred level that builders are encouraged to meet. For either Tier I or II, each appliance provided by the builder shall be ENERGY STAR® labeled if this designation is applicable for that appliance.

Program: Solar Electric Incentive

Page: 21-22 Chapter 5: Energy Efficiency, Newly Constructed Buildings

Commercial Buildings
Newly constructed commercial buildings shall achieve higher energy efficiency levels than the requirements of the Building Energy Efficiency Standards (Title 24, Part 6) in effect at the time the application for a building permit is submitted.

For building permits submitted before August 1, 2009 the applicant is required to meet either of the following two tiers of energy efficiency:

- Tier I – 15 percent reduction in the commercial building's combined space heating, space cooling, lighting and water heating energy compared to the 2005 Title 24 Standards.
- Tier II – 30 percent reduction in the commercial building's combined space heating, space cooling, lighting and water heating energy compared to the 2005 Title 24 Standards.

For building permits submitted on or after August 1, 2009, the applicant is required to meet either of the following two tiers of energy efficiency:

- Tier I – 15 percent reduction in the commercial building's combined space heating, space cooling, lighting, and water heating energy compared to the 2008 Title 24 Standards.
- Tier II – 30 percent reduction in the commercial building's combined space heating, space cooling, lighting, and water heating energy compared to the 2008 Title 24 Standards.

The Tier I level is a minimum condition of participation. Tier II is the Energy Commission's preferred level that builders are encouraged to meet. For either Tier I or II, any equipment or appliance provided by the builder shall be ENERGY STAR® labeled if this designation is applicable to that equipment or appliance.

Solar water heating may be used to assist in meeting the energy efficiency requirements of either Tier I or Tier II.

Program: Solar Electric Incentive
Page: 23-24 Chapter 5: Energy Efficiency, Newly Constructed Buildings

City of Chula Vista

Chula Vista established a Climate Change Work Grouping to determine, among other things, how it would handle future power needs.

Require that 100% of the replacement vehicles purchased for the municipal fleet be high-efficiency (hybrid) or alternative fuel vehicles.

Climate Change Working Group Final Recommendations Report
Page: 1 Recommendation: #1

Require City of Chula Vista-licensed businesses to participate in an energy assessment of their physical premises every three years and upon change of ownership.

Climate Change Working Group Final Recommendations Report
Page: 1 Recommendation: #3

Adopt community-wide green building standards that are comprehensive in coverage and mandatory. New and substantially remodeled structures will be required to be built to LEED silver or to an equivalent 3rd party certification green building program, with the effect of having an energy efficiency impact of at least 20% over Title-24.

Climate Change Working Group Final Recommendations Report
Page: 1 Recommendation: #4

Facilitate widespread installation of solar photovoltaic (PV) systems on commercial, residential and municipal facilities by developing and implementing a solar energy conversion program. Proactively enforce existing codes requiring pre-plumbing for solar hot water.

Climate Change Working Group Final Recommendations Report
Page: 1 Recommendation: #5

20.04.030 Solar Water Heater Preplumbing

All new residential units shall include plumbing specifically designed to allow the later installation of a system which utilizes solar energy as the primary means of heating domestic potable water. No building permit shall be issued unless the plumbing required pursuant to this section is indicated on the building plans. Preplumbing shall extend through the roof when the slope of the roof is less than four inches and 12 inches and when the roof covering is of clay or concrete tile. Preplumbing pipes for domestic solar hot water heating shall be insulated. This section shall apply only to those residential dwelling units for which a building permit was applied for after the effective date of the ordinance codified in this chapter.

Exception: The provision of this chapter can be modified or waived when it can be satisfactorily demonstrated to the Building Official that the solar preplumbing is impractical due to shading, building orientation, construction constraints or configuration of the parcel. (Ord. 3119 § 1, 2008; Ord. 1973 § 1, 1982).

Municipal Code, Chapter 20.04 Energy Conservation Regulations
Page:20-3 Section: 20.04.030

20.04.050 Business Energy Assessments

All commercial and industrial businesses in the City of Chula Vista are encouraged to participate in a free energy assessment of their facilities to help them identify energy efficiency and conservation opportunities that potentially reduce participants' recurring energy costs and corresponding greenhouse gas emissions. Assessments are recommended when a new business license is issued or once every three years for an existing license. Participating businesses are encouraged to cooperate with City staff or their delegate(s) by providing: (1) a date and time for the assessment convenient for the business, (2) access to their facilities for the assessment during their regular business hours, (3) authorization to review their historical energy usage and (4) a signature and title of a facility manager on a completed assessment form acknowledging that the business has received a completed assessment and relevant information about voluntary energy efficiency improvement opportunities. The owner of a multi-tenant commercial building or their designee (property manager) may, at their discretion, authorize a whole building assessment replacing the need for individual tenant assessments.

A. **Assessment Notification Process.** The City may send a notice to each business at least once every three years in conjunction with the City's annual business license renewal mailer providing information that facilitates the

scheduling of an assessment at the [business'] convenience. A business may also receive a business assessment notice whenever a new license is required, such as the establishment of a new business or transfer of ownership for an existing business.

B. **Assessment Deliverables.** The assessment findings, provided to the participating business on a form established by the City Manager in conjunction with the local utility and business representatives, may include a chart of their historical energy consumption, an estimate of potential energy and cost savings from identified energy conservation and efficiency opportunities and an estimate of the corresponding greenhouse gas emission reductions. The assessment may also review water conservation, alternative transportation and other practices which the business could implement and/or promote to its employees and customers and an estimate of the resulting greenhouse gas emission reductions. The City may offer participants assistance with completing the applicable rebate, incentive and/or on-bill financing forms to facilitate the adoption of the identified energy efficiency improvements and help reduce the business's time and cost of implementing the voluntary measures. The City may also provide contact information for the local utility's program staff that may further assist the business in reducing its energy costs.

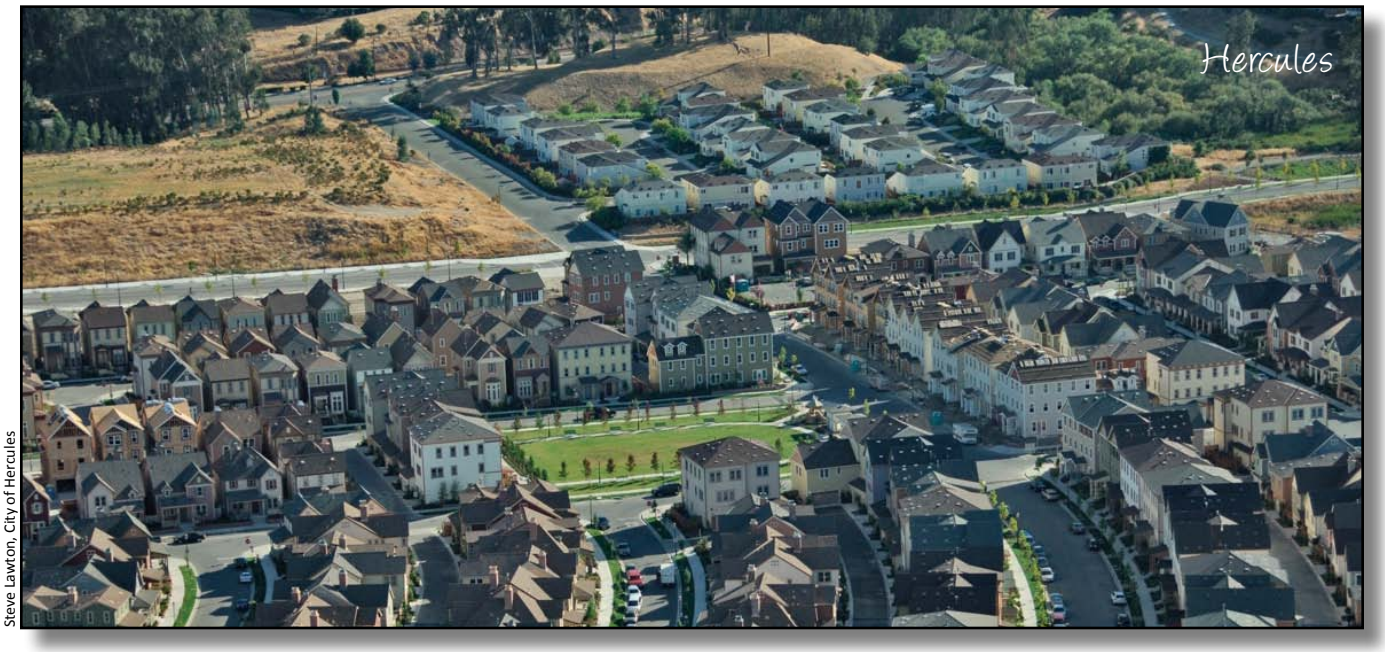
C. **Exclusions.** Because energy efficiency is commonly related to a facility's age and design, a voluntary energy assessment is not recommended for new businesses occupying a commercial space which have completed one of the following: (1) been permitted by the City Building Division within the last three years for a remodel or new construction to meet the most current City Title 24 and above standards, (2) has been certified through a California Energy Commission-approved (or) other applicable state agency green building program, or (3) has already received an assessment within the last three years. In addition, assessments are not necessary for home offices, mobile businesses and other business entities that do not have a utility gas or electric meter on a commercial rate schedule. (Ord. 3119 § 1, 2008).

Municipal Code, Chapter 20.04 Energy Conservation Regulations
Page: 20-3 & 20-4 Section: 20.04.050

Coordinate with Otay Water District, San Diego County Water Authority and the Sweetwater Authority to convert turf lawns to xeriscape.

Climate Change Working Group Final Recommendations
Page: 1 Recommendation: 6

City of Hercules



Steve Lawton, City of Hercules

The City of Hercules demonstrates a new model of settlement patterns and retrofits suburbia to a more transit-oriented community.

The project's residential and commercial land uses as a whole shall achieve an energy efficiency standard equivalent to the California Energy Commission's Tier II standard.

Updated 2009 Redevelopment Plan Draft EIR

Page: 3.2-34 Section: Air Quality Mitigation Measure: AQ-6

City of Livermore

Freedman Tung + Sasaki

Recent investments in Downtown Livermore have created a pedestrian-friendly central gathering space, including outdoor dining areas and central plazas.

These are excellent examples of clear and prescriptive policies and implementation measures for review and consideration by cities and counties that have undeveloped lands at the urban edge (e.g. Fullerton, Orange, Aliso Viejo, etc.). Policies include exemplary inter-jurisdictional Transfer/Purchase of Development Rights and symbiotic urban growth boundary policies as well as a Housing Allocation System that exempts projects that are exceptional in terms of providing community benefits including energy efficiency and affordability.

Please incorporate language into the Livermore General Plan Proposed Climate Change Element to demonstrate consistency with the traffic and circulation section of the General Plan. The Department encourages the City of Livermore to include Transportation Demand Management and carpooling as a means to reduce auto trips. Please include policies (Appendix A, p. 14-15) that address alternate measures level of service (LOS), such as pedestrian and bicycle modes. Alternative LOS measures include assessing on-road bicycling conditions and the pedestrian's perception of comfort and safety while using the road. In addition, policy 5 (Appendix A, p. 14) should include expansion of public transit/shuttle service, transit signal priority, improved regional transit connection/partnerships, and real-time info for transit and ridesharing. Also, the City should work with the regional transit providers on fleet management/upgrades and on acquiring fuel cell, hybrid electric, and/or bio-diesel fuel vehicles. Lastly, the parking section should include parking fees, parking maximums, and preferential parking for carpooling and alternative fuel vehicles.

City: Livermore

Caltrans Comment Letter to Livermore on its General Plan Update

Objective LU-1.1 Locate new development so as to create a consolidated pattern of urbanization, maximizing the use of existing public services and facilities.

P1. Except where special conditions warrant, the City shall allow development only on those properties immediately adjacent to established urban areas, in accordance with the North Livermore Urban Growth Boundary Initiative (NLUGBI).

P2. Residential development shall be limited to those areas within the UGB.

P3. The City shall annex all lands currently under County jurisdiction and within the UGB prior to development in areas designated for urban uses.
2003-2035 General Plan Element: Land Use
Page: 3-30 Policy: P1-P3

Objective LU-1.2 Create neighborhoods that include a mix of uses and a range of housing types to meet the needs of all residents.

P1. Where possible, neighborhood and community commercial uses shall be integrated with public uses in similar areas as comprehensively designed service centers that include public facilities, day care centers, multi-purpose meeting places, health care facilities, housing for the elderly, transportation centers, and schools.
2003-2035 General Plan Element: Land Use
Page: 3-31 Policy: P1

Objective LU-1.3 Utilize the transferring of density in order to preserve environmentally and aesthetically sensitive areas.

P1. The density transfer must be based upon a "general public benefit," such as removing density from a hillside location to a valley location with fewer environmental and aesthetic consequences.

P2. The density transfer must involve a "receiving site." (NLUGBI)

P3. The final density of a receiving site must fall within the designated range of density specified for the site. (NLUGBI)

P4. Any transfer must look at the total "public benefit facility" capacity serving the receiving site. That is, there needs to be sufficient infrastructure (roads, water, sewer, storm drainage, etc.) and public services (police, fire, schools, etc.).
2003-2035 General Plan Element: Land Use
Page: 3-31 Policy: P1-P4

Objective LU-1.4 Encourage commercial development that will support and enhance a vibrant Downtown and serve existing neighborhoods.

P3. Downtown shopping shall be supplemented by neighborhood shopping centers, consisting of retail convenience and personal service uses. Neighborhood shopping centers should be located so that the "trade area" residents are within relatively easy walking distance. Neighborhood centers should be more than one mile apart so as not to overlap with adjacent trade areas. Regional and community serving uses are to be located in areas designated as Business and Commercial Park or Community Serving General Commercial.

P4. Neighborhood-serving retail centers shall be limited to general use daily service needs, such as grocery stores, informal restaurants, drug stores, salons, and dry cleaners. Neighborhood-serving retail centers are defined as planned commercial centers with a grocery store and smaller supporting uses located on a major arterial.

P8. The City shall prohibit strip commercial development, whether retail, office, or service commercial, to avoid the following problems:
(a) traffic congestion resulting from inadequately controlled areas;
(b) high public costs of widening and improving major streets in order to accommodate traffic movement;
(c) difficulty in containment of such areas;
(d) poor aesthetic character where site planning, architectural style, landscaping, and signing are inadequate; and
(e) the spread of blight into adjacent neighborhoods.
2003-2035 General Plan Element: Land Use
Page: 3-32 and 3-33 Policy: P1-P4, and P8

Objective LU-2.1 Develop and phase new housing at a rate that can be absorbed by public infrastructure and in a manner that fits within Livermore's character.

P1. The City shall ensure that the management of community growth will assure that the natural amenities and environmental qualities which are among its greatest assets can be successfully improved, preserved, and enhanced.

P6. It shall be the residential growth policy of the City to plan for an average residential population growth fixed range between 140 and 700 dwelling units annually (based on 0.5 to 2.5 percent of 2002 housing units). The computation of the growth range shall not include small projects of four (4) units or less, which are exempt from growth management. The City may guarantee yearly housing allocations through approved specific plans to encourage and support residential development within the specific plan planning area. In this circumstance, the Citywide yearly housing allocations shall not be less than the number of dwelling units guaranteed under approved specific plans. In addition, the City shall grant 100 housing allocations per year for six years (2004 through 2009) and 200 housing allocations per year for an additional seven years (2010 through 2016) to TDC retiring projects, as explained in LU-2.1.P15. (Reso. 2005-015)

P7. The targeted growth determination may vary, plus or minus, up to 10 units. In order to exceed the targeted growth determination, a project must meet the following criteria:

(a) The project receives a "Good" or ["Better"] in the Housing Implementation Program;
(b) More than one-half of the units of the project could be accommodated within the targeted growth determination; and
(c) If needed, the tiebreaker is that the project is in a targeted category in the Housing Implementation Program.

To encourage development of very-low income units, projects that reserve a minimum of 35 percent of the units for very-low income residents shall not be required to participate in the competitive review process. Very-low income projects will be included in the calculation of the City's annual growth determination. (emphasis added)

P8. To promote the permanent protection and expansion of cultivated agriculture in the South Livermore Valley, bonus parcels created within the City under the Agriculture/Viticulture land use designation, Conditional Urban Overlay District, and Transferred Development Overlay District are not required to participate in the competitive review process. An average of up to 200 units per year will be authorized within the Agriculture/Viticulture, Conditional Urban Overlay District, and Transferred Development Overlay District pursuant to procedures set forth in the Land Use Element Section F, Allowed Development in South Livermore Valley, and in the South Livermore Valley Specific Plan for the period beginning January 1, 1998 and ending December 31, 2005. Bonus parcels within the Overlay Districts will be included in the calculation of the City's annual growth determination.

P9. To promote development and redevelopment in the Downtown, 200 units per year shall be authorized within the Downtown Area, for a maximum of 2,000 units for the period beginning February 2004 and ending December 31, 2013. For this period of time, Downtown Area units are not required to participate in the competitive review process. Please refer to the Downtown Specific Plan for the implementation details of this policy.

P10. The detailed implementation process of the growth determination shall be adopted by resolution of the City Council and outlined in the program administration pamphlet, but shall include the following general steps:

(a) Determine a Specific Three-Year Housing Implementation Program: Using the Housing Element of the General Plan as a guide, the City shall develop a Three-Year Housing Plan. In developing the Plan, the City shall consider, among other issues, infrastructure requirements and limitations as they relate to the proposed growth, including but not limited to capacities of the sewer and water and street systems of the City; service requirements including schools, safety and administrative services; environmental impacts and constraints; the very-low and low income housing needs of the City; and the current job growth rate in Livermore.

The program would delineate:

(1) The type and/or location of residential units targeted for development;
(2) Project specific criteria that will be used to evaluate individual projects; and
(3) The process and schedule by which the Competitive and Non-Competitive Housing Implementation Program will be undertaken.

(b) Determine the Specific Yearly Growth Determination for the Three Year Period: Using the total number of dwelling units to be built during the three-year period as determined in LU-2.1.P10(a)(1) above, the annual growth determination shall be determined. This annual growth determination must be within the range of 140 to 700 units, as set by the General Plan.

(c) Calculation of Yearly Housing Allocation: Determine the yearly housing allocation in the range of 140 to 700 units.

(1) If during the current three-year Housing Implementation Program, the annual applications for allocations exceed the three-year growth determination, the City Council may allocate up to 150 units per year from the first two years of the next three-year Housing Implementation Program (Reso. 2005-015).

(d) Determine Allocation Recipients in a competitive Review Process: Developers shall submit an application consisting of:

(1) A concept site plan showing street and lot layout, number and types of units, building footprints, etc.
(2) Typical elevations of buildings, walls, carports, fences, etc.
(3) Plans that show landscaping, usable open spaces and other amenities. The City will evaluate and rank the applications using the goals of the Three-Year Housing Plan (See LU P7(1)), and the other criteria and standards of the implementation process.

(e) Award Housing Allocations: Those projects determined eligible to receive allocations will proceed with the normal subdivision, site plan, design review, and other necessary approval processes.

(f) Exempt Projects: Projects that are exempt from either the competitive process or the growth range are subject to the normal subdivision, site plan, design review, and other necessary approval processes.

P11. When residential growth applications fall below the established growth range of the residential management program, the City shall allocate residential units without a competitive review process. The City will identify procedures in the Housing Implementation Program to be utilized in years when the number of units required are less than those established by this policy. These procedures shall maintain the administrative integrity of the program, but will not attempt to manage the range of growth or implement other growth management objectives.

P13. All residential growth shall be consistent with the policy that a proposed development must be in the best interest of the community as a whole, considering that our goal is to achieve balance in our community, which shall be understood to mean:

(a) A geographical balance of the physical population on the terrain.
(b) That the adverse impact of the residential growth on air quality be balanced by factors such as reduced vehicle miles traveled (VMT) because of shopping facility locations and local employment of the residents.
(c) That the ratio of the industrial-commercial tax base versus [the] residential tax base will become more favorable.
(d) The need to provide more very-low and low income housing.
(e) Compliance with the goals and policies set forth in this plan.

2003-2035 General Plan Element: Land Use
Page: 3-35 – 3-27 Policy: P1, P6-P9, P11, and P13

Objective LU-4.1 Prevent development from occurring where the location or the physical or biological characteristics of the site would make the land use inappropriate.

P1. Impacts to wetland and biological resources shall be calculated on a gross acreage basis and shall include areas of steep slopes, streets, floodways, and parks dedications that could result in losses of wildlife and plant habitat on a parcel.

P2. The City shall encourage the clustering of development in order to minimize its overall footprint in areas of ecological sensitivity, such as hillsides, alkali springs, creek corridors, and watersheds.

2003-2035 General Plan Element: Land Use
Page: 3-43 Policy: P1-P2

Objective LU-5.1 Maintain an Urban Growth Boundary to protect open space and agricultural uses in North Livermore.

P1. An Urban Growth Boundary is completed for Livermore. This boundary is the existing South Livermore Urban Growth Boundary (as adopted by the South Livermore Urban Growth Boundary Initiative, approved in March 2000) beginning at Greenville Road, west to its junction at Interstate Highway 580 with the Livermore City Boundary, along the City boundary generally to the east, except where the boundary is south of I-580 the Urban Growth Boundary shall be I-580, to Assessor's Designated Parcel 902-8-5-5, north along the western boundary of that parcel and Designated Parcel 902-8-1 to the northwest corner of Parcel 902-8-1, east along the northern boundary of Parcel 902-8-1 to the Livermore City Boundary, north and generally east along that boundary to Assessor's Designated Parcel 99B-5500-1-10, east along the northern boundary of that parcel and south along the eastern boundary of that parcel to Altamont Pass Road, southwest on that road to Greenville Road, south on Greenville Road to the Livermore City Boundary, generally south along that boundary to Greenville Road, and south to the South Livermore Urban Growth Boundary. The Livermore City Boundary means the City boundary on June 30, 2002.

2003-2035 General Plan Element: Land Use
Page: 3-48 Policy: P1

Objective LU-8.1 To develop easements as a mechanism for ensuring that development is limited to allowed uses.

P1. The City shall require an easement, running with the land, which bars development that would not be permitted under the NLUGBI for each parcel on which development is permitted, or from which clustered development is transferred. The easement shall be conveyed to the City and, if available, jointly to an independent land trust (that complies with the Land Trust Standards and Practices of the Land Trust Alliance). For purposes of this section, development shall not include structures other than buildings or development permitted under LU-5.2.P4(2) for agriculture (which does not include development under LU-5.2. P4(1), (3) or (4)). The easement shall be negative only; it shall convey no possessory interest to the City or other designee, nor confer any right of public access. The owner retains exclusive occupancy and use. The City has no responsibility or liability because of the easement for acts or omissions on the parcel, except in good faith and effectually to prevent or remedy violations of the easement. Easements shall be duly recorded in the County land records on June 30, 2002.
2003-2035 General Plan Element: Land Use
Page: 3-55 Policy: P1

Objective LU-9.1 To create a mechanism for transferring development credit from North Livermore to other areas of the City.

P1. The City shall have a Transferable Development Credits Program for North Livermore to aid in accomplishing the purpose of the NLUGBI. Property owners may choose to participate in the Program, even though their property has not been annexed to Livermore. It allows participating owners to share in development values in Livermore, given the special restrictions on land use in North Livermore and the added development in Livermore permitted under the Program.

P2. Transferable Development Credits shall be granted by the City to property owners in North Livermore, by rule in accordance with this section, in number and manner to accomplish the objectives of the NLUGBI. The City Council shall grant credits on the following bases:
(1) [A]creage owned in North Livermore, but not less than one credit for each full five acres
(2) [N]ot less than eleven credits for an owner forgoing the right to create an additional parcel under the NLUGBI
(3) [N]ot less than ten credits for an owner forgoing the right to any dwelling units on a parcel, which forbearance shall also include the right to any dwelling units on one of the parcels resulting directly or indirectly from any permitted subdivision of that parcel
(4) [N]ot less than twelve credits for elimination of existing dwelling units and residential accessory structures on a parcel and for the owner forgoing the right to any dwelling units on that parcel, which forbearance shall also include the right to any dwelling units on one of the parcels resulting directly or indirectly from any permitted subdivision of that parcel.

P3. Duplicate credits may not be granted with respect to the same acreage or right forgone, regardless of changes in ownership. Credits given under the subparagraphs (2), (3), or (4) of LU-9.1.P2 may be relinquished to the City prior to use or initial transfer and, if no gift is intended, the right to create a parcel, to build or rebuild as permitted by the NLUGBI regained and the corresponding easement conveyed under Policy LU-9.1.P7 reconveyed. The Council may differentiate in the number of credits granted, in excess of the minimums guaranteed by the paragraphs (1), (2), (3), and (4) of LU-9.1.P2 among areas of North Livermore to reflect development potential, and among grantees according to their willingness to participate in the program at an earlier rather than later date.

P4. Development credits may be used, as the City Council approves in accordance with the NLUGBI and other City regulations, in areas within the City boundary and the Urban Growth Boundary to build dwelling units and commercial and industrial space, including units and space that otherwise would not be permitted or not permitted until a later time. To accomplish the purpose of the NLUGBI, the

Council shall provide for the efficacious use of credits, over a reasonable time period, equal in number to the credits granted. To create an adequate initial demand, the Council shall provide for use of an appropriate number of credits promptly after the effective date of the NLUGBI. With reasonable justification, the Council may permit more development per credit in some receiving areas and for certain types of uses. Credits also may be used in unincorporated areas if approved by the County, in accordance with the East County Area Plan, or in the cities that provide for their use.

P5. Credits may be sold or purchased, or otherwise transferred or received, by any person including the City and other government entities. The City may use funds available for that purpose to buy credits, including a revolving fund replenished by the sale of credits. The City may buy and sell credits to establish and maintain an efficacious market for the credits, or to extinguish them. (Extinction of credits may be part of a more general City program to purchase development rights.)

P6. The City shall establish appropriate means to inform persons about the development credits program and to facilitate transfer of credits from transferors to transferees. The City shall have procedures and requirements to ensure that it has accurate records of development credit grants, transfers, and use.

P7. As a precondition for the grant of development credits under LU-9.1.P2, the owner shall convey an easement, which runs with the land, to the City and, if available, jointly to an independent land trust that meets the standards of LU-8.1.P1. As provided in that policy, the easement shall be negative only. If the credits are granted under LU-9.1.P2(1), the easement shall bar any future land division, development or use not permitted by the NLUGBI on the parcel where the acreage is located. If credits are granted for forgoing the right to create a parcel under LU-9.1.P2(2), the easement shall relinquish that right permanently. If the credits are granted under LU-9.1.P2(3) or LU-9.1.P2(4) for forgoing all dwelling units on a parcel, the easement shall relinquish the right to any dwelling units or any other development on the parcel, or on one of the parcels resulting directly or indirectly from any permitted subdivision of that parcel, except development under LU-5.2.P4(2) for agricultural use and under LU-5.2.P4(3) for packaging, processing, storage or sale of produce or plants. Easements shall be duly recorded in the County land records.

P8. Nothing in this section bars the City from granting development credits for areas other than North Livermore or on bases other than specified in LU-9.1.P2 including for acceptance of recycled water, and permitting their use.

P9. All land outside of specific plan areas will be classified as TDC receiving areas as identified and shall include subsequent general plan amendments that result in new residential land use designations or an increase in residential density. TDC receiving sites incorporate a baseline density achievable without the need to comply with the City's TDC Ordinance, by acquisition of transferable development credits (TDCs), or payment of an in-lieu fee, if one is adopted. Applicants who wish to exceed this baseline density must comply with the City's TDC Ordinance by purchasing TDCs or paying an in-lieu fee, if one is adopted. Under the TDC option, the General Plan maximum density still limits the maximum density allowed on the site under the TDC option. The TDC requirements in a specific plan area, if any, shall be set forth in the specific plan for that area. The TDC Ordinance may require different rates of TDC acquisition for different development products. It may require more TDCs per dwelling unit in excess of baseline density for detached dwelling units than for attached dwelling units. To promote awareness of these TDC provisions, the General Plan Land Use Map shall identify TDC receiving areas by means of a two-part classification. The first part of the classification indicates the baseline density or maximum density allowed when developers choose not to use the TDC option. The second part of the classification states the maximum density allowed when developers choose to exceed the baseline density and comply with the requirements of the City's TDC Ordinance.

P10. The City Council and/or agencies authorized by the City Council to implement the TDC Program may concentrate the use of funds under their control to prioritize TDC acquisitions in selected portions

of North Livermore in order to achieve the overall goals of the North Livermore Urban Growth Boundary Initiative (NLUGBI).

P11. The City's TDC Ordinance may include a provision for applicants to comply with TDC requirements by paying an in-lieu fee instead of acquiring actual TDCs. If so, the City should review the TDC fee bi-annually and make needed adjustments based on estimates or appraisals of TDC value, recent TDC transactions, inflation indices, and other relevant information.

P12. The City shall seek to coordinate with the Tri-Valley Conservancy organization to help in implementing the TDC program. Such assistance could include authorizing the non-profit organization, under City Council direction, to hold and enforce easements, acquire and sell TDCs, market the TDC program, facilitate transactions, seek funding for TDCs, create a registry of interested buyers/sellers, maintain records of transactions, and advise the City of needed program refinements.

P13. Either directly or [through] an authorized agency, the City may acquire TDCs using funding from settlement agreements, mitigation agreements, grants, general fund, loans, grants, and other sources appropriate for the acquisition of open space.

P14. It is consistent with this General Plan that non-residential development also be required to acquire TDCs in the long-term future and thereby contribute to the preservation of North Livermore. Because a market for higher-density nonresidential development did not exist in Livermore in 2003, the TDC Ordinance initially adopted by the City did not require developers to acquire TDCs so that non-residential structures can exceed a baseline floor-area ratio (FAR). However, a market may evolve over time for higher intensity non-residential development. If so, the City Council may impose such a requirement on non-residential development in all or part of the City by amending the TDC Ordinance.
2003-2035 General Plan Element: Land Use
Page: 3-56 – 3-60 Policy: P1-P14

Objective LU-10.1 Carefully regulate the subdivision of land within the City limits or subsequently annexed, which is located outside the UGB.

P1. The minimum parcel size in North Livermore shall be at least 100 full acres, except as provided in LU-10.1.P2 and LU-5.3.P3 through P6 with respect to clustering.

P2. Forty-acre or larger parcels may be permitted by the City for purposes of cultivated agriculture in North Livermore in the area bounded on the north by May School Road extended by a straight line due west to Collier Canyon Road, by Collier Canyon Road, Dagnino Road, and Raymond Road east to the Urban Growth Boundary, if:
(1) the City Council does an environmental impact analysis and holds public hearings regarding the creation in that area of the parcels and their use for cultivated agriculture;
(2) the Council finds that there is an adequate, sustainable, safe supply of water for projected irrigated agriculture and other uses on proposed parcels (an adequate and sustainable water supply shall be found if there is a valid contract for the period of agreed cultivation under LU-10.1.P2(6) for necessary water with an irrigation district, water agency, or the City of Livermore);
(3) cultivation and irrigation, as may be conditioned by the Council, will not cause harm to groundwater, soil, biota or other environmental qualities in violation of Federal, State, or City environmental protection standards;
(4) 80% of the parcel has a slope of 20% or less;
(5) parcel boundaries are drawn to maximize productive use for agriculture;
(6) owners contract with the City, and provide a bond or other adequate and effective guarantee, that they will plant within two years of the creation of a parcel and maintain for eight years, or more if the Council deems appropriate, cultivated agriculture on the portion of the parcel that can be cultivated, except for a development envelope not to exceed two acres, or any larger area permitted under LU-

5.3.P2, to the extent that there is no other developable land on the parcel; and
(7) owners convey an easement to the City and, if one is available, jointly to an independent land trust that meets the standards of LU-8.1.P1. The easement shall have the characteristics stated in LU-8.1.P1, and shall effectively and permanently bar any development not permitted by this measure. The City may also require a trail easement for purposes of a trail system.

P3. Creation of a parcel or parcels under this subsection may not leave a remainder area which is smaller than the smallest parcel permitted under this section.

P6. Apart from the regular subdivision process, the City may not permit lot line adjustments unless the adjusted parcels would comply fully with the General Plan and all City zoning and building ordinances, including minimum parcel sizes, nor permit adjustments between more than four parcels, or as part of a plan or series of adjustments between more than four parcels, except as required by State law.

P7. The acreage of contiguous parcels in common ownership at the time the NLUGBI becomes effective or thereafter that are smaller than the minimum parcel size, although the parcels are not merged by the NLUGBI, shall be treated as though part of one parcel, up to the minimum parcel size, for purposes of permissible development.
2003-2035 General Plan Element: Land Use
Page: 3-60 – 3-62 Policy: P1-P3 and P6-P7

Objective LU-11.1 Strive to provide all future housing within the Urban Growth Boundary.

P1. Nothing in the NLUGBI, including in this section, shall be applied to preclude City compliance with obligations to provide for housing that are mandated by State law.

P2. To the maximum extent practicable, the City shall meet any State legal requirements within the City's Urban Growth Boundary.

P3. If State requirements make it necessary to go beyond the Urban Growth Boundary to provide for housing, the voters of the City may approve an extension of the Boundary. If necessary, the City Council also may approve housing beyond the Boundary, provided:
(1) There is no land within the Boundary to meet a State requirement through new development, more intensive development, or redevelopment;
(2) No more land is used outside the Boundary than is necessary for the housing required by State law;
(3) The area is adjacent to the Boundary, or as near thereto as possible;
(4) There will be adequate public facilities and services for the housing; and
(5) At least 35% of the housing provided shall be for moderate, low and [very-low] income households as defined by State law and at least 20% shall be for low- and [very-low] income households.

P4. If the City must breach the Urban Growth Boundary, minimum parcel size, residential density limits, maximum development envelopes and floor areas, and height restrictions shall not apply to the extent necessary to confine the breach to the minimum area needed to comply with State legal requirements.
2003-2035 General Plan Element: Land Use
Page: 3-62 Policy: P1-P4

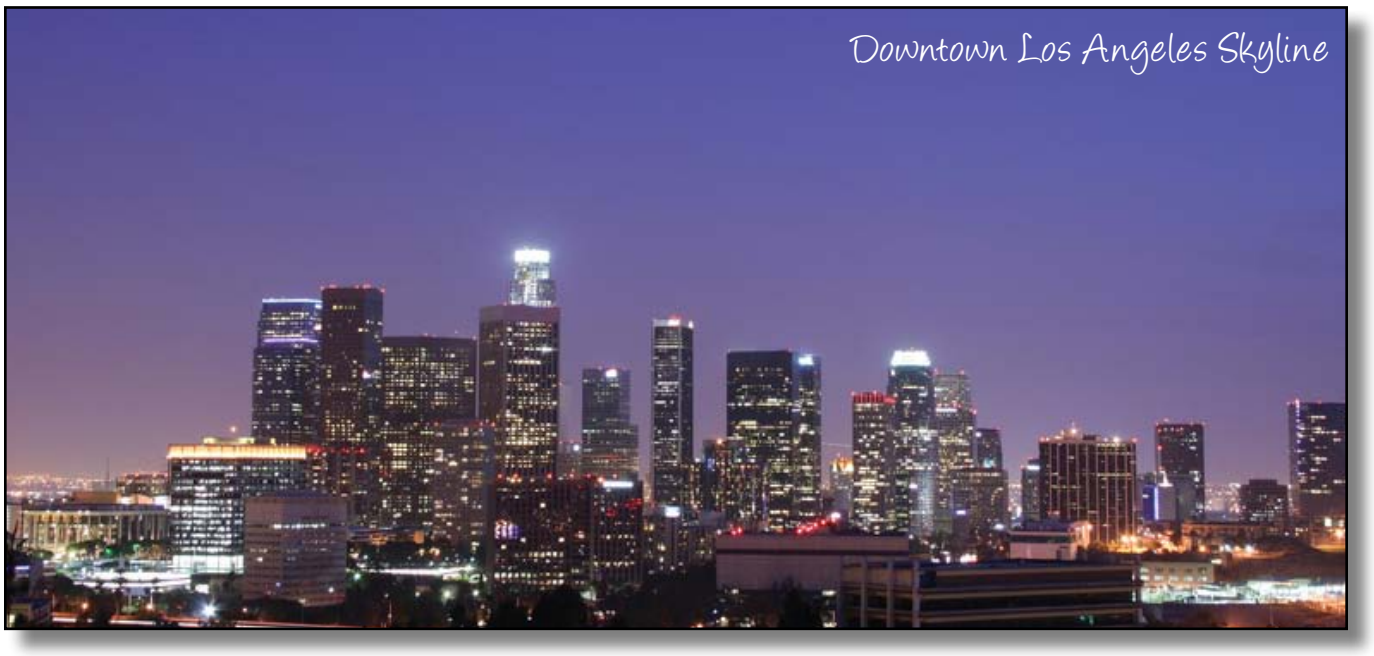
Objective LU-20.1 Preserve agricultural and natural resources in the unincorporated area to provide the natural setting for Livermore's identity.

P1. The City shall request Alameda County to limit land uses in the unincorporated part of the Planning Area, including that designated Rural Residential, to agricultural and open space uses.

P2. The City shall encourage Alameda County, the State, non-profit organizations and interested individuals to preserve, acquire and enhance open space in the Planning Area.

P3. The City shall collaborate with Alameda County and with Alameda County LAFCO to protect existing land uses from development inappropriate for rural areas.
2003-2035 General Plan Element: Land Use
Page: 3-79 Policy: P1-P3

County of Los Angeles



Los Angeles recently implemented green policies that incorporate city purchasing, recycling and other policies to conserve natural resources.

To implement the County's "green" initiatives, County departments will be tasked to:

- Institute practices that reduce waste by increasing product efficiency and effectiveness;
- Purchase products that minimize environmental impacts, toxics, pollution, and hazards to worker and community safety to the greatest extent practicable;
- Purchasing objectives will include acquisitions that:
  - Conserve natural resources;
  - Minimize environmental impacts such as pollution and use of water and energy;
  - Eliminate or reduce toxics that create hazards to workers and our community;
  - Support strong recycling markets;
  - Reduce materials that are put into landfills;
  - Increase the use and availability of environmentally preferable products that protect the environment;
  - Encourage manufacturers and vendors to reduce environmental impacts in their production and distribution systems; and
  - Create a model for successfully purchasing environmentally preferable products that encourages other purchasers in our community to adopt similar goals.

In practice, the objective is to purchase products that have reduced environmental impact because of the way they are made, used, transported, stored, packaged, and disposed of. It means looking for products that do

not harm human health, are less polluting, and that minimize waste, maximize use of bio-based or recycled materials, conserve energy and water, and reduce the consumption or disposal of hazardous materials. When determining whether a product is environmentally preferable, the following standards should be considered:

- Biobased
- Biodegradable
- Carcinogen-free
- Bioaccumulative toxic (PBT)-free
- Chlorofluorocarbon (CFC)-free
- Heavy metal free (i.e., no lead, mercury, cadmium)
- Low volatile organic compound (VOC) content
- Made from renewable materials
- Compostable
- Low toxicity
- Recycled content, Reusable
- Reduced packaging, Refurbished
- Reduced greenhouse gas emission
- Energy, Resource and Water efficient

Purchase products that include recycled content, are durable and long-lasting, conserve energy and water, use agricultural fibers and residues, reduce greenhouse gas emissions, use unbleached or chlorine free manufacturing processes, and use wood from [sustainably] harvested forests.

Purchase of Environmentally Preferable Products (Green Purchasing)
Page: 1-7 Section: Board Policy

City of Malibu

Malibu, with its famous coastline, pays particularly close attention to water quality issues.

New development shall include a separate [greywater] treatment system where feasible.

General Plan
Policy: 3.123

Tucked away in the Sierra Foothills, the County of Nevada has adopted administrative policies that require the use of recycled paper and other environmentally friendly policies.

A. All County of Nevada personnel will specify recycled content and environmentally preferable products unless such products do no perform satisfactorily and/or are unreasonably expensive. The priority for purchasing recycled content products shall be as follows:

1. The highest percentage of recycled content of post-consumer recovered material, available in the marketplace; and
2. The highest percentage of "pre-consumer recovered material," available in the market place.

B. The County of Nevada shall utilize life cycle cost analysis when considering the purchase of capitol assets.

C. The County of Nevada shall solicit the use of recycled content and other environmentally preferred products in its procurement documents.

D. All County of Nevada agencies, departments, and divisions shall practice waste prevention and recycling.

Procurement Policy, Resolution Number: 02-194
Page: 2 Section: 3 (Policies)

A. Procurement Practices

The Department of General Services and Recycling Coordinator shall work in collaboration with the Green Procurement and Sustainable Practices Committee to evaluate the following environmentally preferable product categories, at a minimum, and produce a list of such products that meet the criteria. Agencies, Departments and Divisions shall order from the list that meets the criteria unless a performance issue with a specific product arises or the cost of the product is unreasonably expensive.

1. Printing and writing papers including all imprinted letterhead paper, envelopes, copy paper and business cards shall contain a minimum of 30 percent post-consumer recycled content.
2. Paper products including janitorial supplies, shop towels, hand towels, facial tissue, toilet paper, seat covers, corrugated boxes, file boxes, hanging file folders, and other products composed largely of paper.

3. Remanufactured laser printer toner cartridges and remanufactured or refillable inkjet cartridges.
4. Re-refined antifreeze including on-site anti-freeze recycling.
5. Re-refined lubricating and hydraulic oils.
6. Re-refined plastic outdoor wood substitutes including plastic lumber, benches, fencing, signs and posts.
7. Recycled content construction, building and maintenance products, including plastic, lumber, carpet, tiles and insulation.
8. Recrushed cement concrete aggregates and asphalt.
9. Cement and asphalt concrete containing tire rubber, glass cullet, recycled fiber, plastic, fly ash, or other alternative products.
10. Retreaded tires and products made from recycled tire rubber including rubberized asphalt, playground surfaces, and fatigue mats.
11. Compost, mulch, and other organics including recycled biosolids products.
12. Remanufactured paint.
13. Janitorial cleaning supplies.
14. Other products that may be designated by the Green Procurement Sustainable Practices Committee.
    Procurement Policy, Resolution Number: 02-194
    Pages: 2-3 Section: 4 (Best Practices)

B. Waste Prevention Practices

County of Nevada staff is required to reduce their consumption of resources by incorporating the following practices into their daily activities.

1. Consider durability and reparability of products prior to purchase.
2. Conduct routine maintenance on products/equipment to increase the useful life.
3. Use duplex features on laser printers and copies. Specify duplex on all print jobs.
4. The County will also engage in the practice of two-sided copies for all County memos and mailings.
5. Create electronic letterhead for use by all agencies, departments and divisions.
6. Send and store information electronically when possible. This includes e-mail, web site, and electronic fax.
7. Review records retention policies and implement document imaging systems.
8. Other waste prevention practices that further the goals of this policy.
    Procurement Policy, Resolution Number: 02-194
    Page: 4 Section: 4 (Best Practices)

IX. Responsibilities of All County Agencies, Departments and Divisions

Each agency, department and division shall:

1. Practice waste prevention.
2. Continue to utilize recycling programs and expand where possible.
3. Procure products in compliance with the Green Procure and Sustainability Practices Policy.
4. Evaluate each designated product to determine the extent to which agencies, departments, and divisions may practicably use it.
5. Ensure that procurement documents issued by the agency, department or division require environmentally preferred purchasing.
6. Investigate where County of Nevada policies and practices could be modified to encourage or require waste reduction, recycling, and environmentally preferable purchasing.
7. Use recycled products for their business cards, letterhead stationary, envelopes, business forms, and pertinent documents. All said documents shall be printed with the standard phrase, “Printed on Recycled/Recyclable Paper,” thereby promoting the use of post-consumer content. If sufficient documentation and certification is available, reasonable efforts shall be undertaken to specifically indicate the percentage of recycled post-consumer content. In addition, the County publications or mailings will be printed using non-toxic inks.
8. Photocopy requested documents produced by grantees and contractors on post-consumer recycled paper. All contractors and grantees will submit all requested documents to the County on recycled paper. This shall include, but is not limited to, drafts, reports, training manuals, bids, responses to

inquiries and permit applications. The County will also engage in the practice of two-sided copies for all County memos and mailings.
Procurement Policy, Resolution Number: 02-194
Page: 6 Section: 4 (Responsibilities)

City of Oakland

Though the Bay Area is known for its extensive transit system, Oakland has significant policies to encourage bicycle ridership.

Projects subject to the requirements of the C&D recycling ordinance (affected projects) must now recycle 100% of all Asphalt & Concrete (A/C) materials and 65% of all other materials.
City of Oakland Public Works Agency
Location: http://www.oaklandpw.com/Page761.aspx

17.117.020 Bicycle Parking Required for New and Existing Uses.
A. Bicycle Parking Shall be Provided for New Facilities and Additions to Existing Facilities. Bicycle parking as prescribed hereafter shall be provided for activities occupying facilities, or portions thereof, which are constructed, established, wholly reconstructed, or moved onto a new lot after the effective date of the bicycle parking requirements, or of a subsequent rezoning or other amendment thereto establishing or increasing bicycle parking for such activities, except to the extent that existing bicycle parking exceeds such requirements for any existing facilities. The required amount of new bicycle parking shall be based on the cumulative increase in floor area, or other applicable unit of measurement prescribed hereafter, after said effective date.

B. Bicycle Parking Shall be Provided for Remodels. "Remodel" means any proposed physical improvement of an existing structure which requires a building permit but does not include New Facilities or Additions to Existing Facilities.

1. Remodel projects that are over 10,000 s.f. and have an estimated construction cost, excluding seismic retrofit costs, greater than $250,000 shall provide the number of short-term bicycle parking spaces prescribed in Sections 117.090 to 117.120. This amount shall be adjusted to account for changes in the Building Cost Index for the San Francisco Bay Region, as reported in the Engineering News Record. The

adjustments shall be made annually, starting in 2009, no sooner than one year from adoption.

2. Remodel projects that are over 50,000 s.f. and have an estimated construction cost, excluding seismic retrofit costs, over $1,000,000 shall provide, in addition to short-term bicycle parking, the number of long-term bicycle parking spaces and shower and locker facilities prescribed in Sections 117.090 to 117.130. This amount shall be adjusted to account for changes in the Building Cost Index for the San Francisco Bay Region, as reported in the Engineering News Record. The adjustment shall be made annually, starting in 2009, no sooner than one year from adoption.

C. Bicycle Parking Shall be Provided for New Living Units in Existing Facilities. If any facility, or portion thereof, which is in existence on the effective date of the bicycle parking requirements, or of a subsequent rezoning or other amendment thereto establishing or increasing bicycle parking requirements for an activity therein, is altered or changed in occupancy so as to result in an increase on the number of residential living units therein, bicycle parking as prescribed hereafter shall be provided for the new units. However, such bicycle parking need be provided only in the amount by which the requirement prescribed hereafter for the facility after said alteration or change exceeds the requirement prescribed hereafter for the facility as it existed prior to such alteration or change; and such new bicycle parking need not be provided to the extent that existing bicycle parking exceeds the latter requirement.

Planning Code, Chapter: 17 (Bicycle Parking Requirements)
Page: 426 Policy: 17.117.020

17.117.050 Types of Required Bicycle Parking.

A. Long-term Bicycle Parking. Each long-term bicycle parking space shall consist of a locker or locked enclosure providing protection for each bicycle from theft, vandalism and weather. Long-term bicycle parking is meant to accommodate employees, students, residents, commuters, and others expected to park more than two hours.

B. Short-term Bicycle Parking. Short-term bicycle parking shall consist of a bicycle rack or racks and is meant to accommodate visitors, customers, messengers, and others expected to park not more than two hours.

Planning Code, Chapter: 17 (Bicycle Parking Requirements)
Page: 427 Policy: 17.117.050

17.117.070 Location and Design of Required Bicycle Parking.
Required bicycle parking shall be placed on site(s) as set forth below:

A. A bicycle parking space shall be at least two and a half (2.5) feet in width by six (6) feet in length to allow sufficient space between parked bicycles.

B. An encroachment permit may be required from the City to install bicycle parking in the public right-ofway.

C. Bicycle parking facilities shall not impede pedestrian or vehicular circulation.

a. Bicycle parking racks located on sidewalks should maintain a minimum of five and one half (5.5) feet of unobstructed pedestrian right-of-way outside the bicycle parking space. For sidewalks with heavy pedestrian traffic, at least seven (7) feet of unobstructed right-of-way is required.

D. Bicycle parking facilities are subject to the following standards:

a. Racks shall be located with at least thirty (30) inches in all directions from any vertical obstruction, including but not limited to other racks, walls, and landscaping. General Food Sales and Large Scale Combined Retail and Grocery Sales Activities are encouraged to locate racks with a thirty-six (36) inch clearance in all directions from any vertical obstruction, including but not limited to other racks, walls, and landscaping.

b. A minimum four (4) foot wide aisle of unobstructed space behind all required bicycle parking shall be provided to allow for adequate bicycle maneuvering.

E. Bicycle parking facilities within auto parking facilities shall be protected from damage by cars by a physical barrier such as curbs, wheel stops, poles, bollards, or other similar features capable of preventing automobiles from entering the bicycle facility.

F. Bicycle parking facilities shall be located in highly visible well-lighted areas. In order to maximize security, whenever possible short-term bicycle parking facilities shall be located in areas highly visible from the street and from the interior of the building they serve (i.e., placed adjacent to windows).

G. The location and design of required bicycle parking shall be of a quality, character and color that harmonize with adjoining land uses. Required bicycle parking shall be incorporated whenever possible into building design or street furniture.

H. Long-term bicycle parking shall be covered and shall be located on site or within five hundred (500) feet of the main building entrance unless approved by the Director of City Planning with a written Discretionary Waiver. The main building entrance excludes garage entrances, trash room entrances, and other building entrances that are not publicly accessible.

I. Discretionary Waiver. The long-term bicycle parking location requirement of five hundred (500) feet may be waived in writing by the Director of City Planning when said activities are located within one thousand (1000) feet of a proposed or existing bike station or similar high capacity bicycle parking facility. Any determination on such waiver shall be subject to appeal pursuant to the administrative appeal procedure in Chapter 17.132.

J. Whenever any required bicycle parking is proposed to be provided on a lot other than the lot containing the activity served, the owner or owners of both lots shall prepare and execute to the satisfaction of the City Attorney, and file with the Alameda County Recorder, an agreement guaranteeing that such facilities will be maintained and reserved for the activity served, for the duration of said activity.

K. Short-term bicycle parking shall be placed within fifty (50) feet of the main entrance to the building or commercial use and should be in a well trafficked location visible from the entrance. When the main entrance fronts the sidewalk, the installer may obtain an encroachment permit from the City to install the bicycle parking in the public right-of-way. The main building entrance excludes garage entrances, trash room entrances, and other building entrances that are not publicly accessible.

Planning Code, Chapter: 17 (Bicycle Parking Requirements)
Page: 427-428 Policy: 17.117.070

Sacramento has been a model for many cities, especially in terms of its multi-modal services.

The City of Sacramento's policies concerning circulation are leading edge in many respects. Policies providing for a flexible Level of Service (LOS) standard to permit increased densities and mixes of uses have been demonstrated to be critical to reducing sprawl, as well as vehicle miles traveled. Rigid LOS standards drive development away from downtowns and urban cores where new development should be focused to reinvigorate these areas and use our land more efficiently.

Multimodal Choices. The City shall promote development of an integrated, multi-modal transportation system that offers attractive choices among modes including pedestrianways, public transportation, roadways, bikeways, rail, waterways, and aviation and reduces air pollution and greenhouse gas emissions. (MPSP/SO)

General Plan, Mobility - Circulation System Element
Page: 2-162 Policy: M-1.2.1

LOS Standard. The City shall allow for flexible Level of Service (LOS) standards, which will permit increased densities and mix of uses to increase transit ridership, biking, and walking, which decreases auto travel, thereby reducing air pollution, energy consumption, and greenhouse gas emissions.

a. Core Area Level of Service Exemption—LOS F conditions are acceptable during peak hours in the Core Area bounded by C Street, the Sacramento River, 30th Street, and X Street. If a Traffic Study is prepared and identifies a LOS impact that would otherwise be considered significant to a roadway or intersection that is in the Core Area as described above, the project would not be required in that particular instance to widen roadways in order for the City to find project conformance with the General Plan. Instead, General Plan conformance could still be found if the project provides improvements to other parts of the citywide transportation system in order to improve transportation-system-wide roadway capacity, to make intersection improvements, or to enhance non-auto travel modes in furtherance of the General Plan goals. The improvements would be required within the project site vicinity or within the area affected by the project's vehicular traffic impacts. With the provision of such other transportation infrastructure improvements, the project would not be required to provide any mitigation for vehicular

traffic impacts to road segments in order to conform to the General Plan. This exemption does not affect the implementation of previously approved roadway and intersection improvements identified for the Railyards or River District planning areas.

b. Level of Service Standard for Multi-Modal Districts— The City shall seek to maintain the following standards in the Central Business District, in areas within ½ mile walking distance of light rail stations, and in areas designated for urban scale development (Urban Centers, Urban Corridors, and Urban Neighborhoods as designated in the Land Use and Urban Form Diagram). These areas are characterized by frequent transit service, enhanced pedestrian and bicycle systems, a mix of uses, and higher-density development.
   - Maintain operations on all roadways and intersections at LOS A-E at all times, including peak travel times, unless maintaining this LOS would, in the City's judgment, be infeasible and/or conflict with the achievement of other goals. LOS F conditions may be acceptable, provided that provisions are made to improve the overall system and/or promote nonvehicular transportation and transit as part of a development project or a City-initiated project.

c. Base Level of Service Standard—The City shall seek to maintain the following standards for all areas outside of multi-modal districts.
   - Maintain operations on all roadways and intersections at LOS A-D at all times, including peak travel times, unless maintaining this LOS would, in the City's judgment, be infeasible and/or conflict with the achievement of other goals. LOS E or F conditions may be accepted, provided that provisions are made to improve the overall system and/or promote nonvehicular transportation as part of a development project or a City-initiated project.

d. Roadways Exempt from Level of Service Standard—The above LOS standards shall apply to all roads, intersections, or interchanges within the City except as specified below. If a Traffic Study is prepared and identifies a significant LOS impact to a roadway or intersection that is located within one of the roadway corridors described below, the project would not be required in that particular instance to widen roadways in order for the City to find project conformance with the General Plan. Instead, General Plan conformance could still be found if the project provides improvements to other parts of the city wide transportation system in order to improve transportation-system-wide roadway capacity, to make intersection improvements, or to enhance non-auto travel modes in furtherance of the General Plan goals. The improvements would be required within the project site vicinity or within the area affected by the project's vehicular traffic impacts. With the provision of such other transportation infrastructure improvements, the project would not be required to provide any mitigation for vehicular traffic impacts to the listed road segment in order to conform to the General Plan.

   General Plan, Mobility - Circulation System Element
   Pages: 2-162 and 163 Policy: M-1.2.2

Grid Network. The City shall require all new residential, commercial, or mixed-use development that proposes or is required to construct or extend streets to develop a transportation network that provides for a well-connected, walkable community, preferably as a grid or modified grid. (RDR)

General Plan, Mobility - Circulation System Element
Page: 2-165 Policy: M-1.3.1

Private Complete Streets. The City shall require large private developments (e.g., office parks, apartment complexes, retail centers) to provide internal complete streets that connect to the existing roadway system. (RDR)

General Plan, Mobility - Circulation System Element
Page: 2-166 Policy: M-1.3.2

Barrier Removal for Accessibility. The City shall remove barriers, where feasible, to allow people of all abilities to have access within and among infrastructure serving the community. (MPSP/SO)

General Plan, Mobility - Circulation System Element
Page: 2-167 Policy: M-1.3.4

Connections to Transit Stations. The City shall provide connections to transit stations by identifying roadway, bikeway, and pedestrianway improvements to be constructed within ½ mile of major transit stations. Transportation improvements in the vicinity of major transit stations shall emphasize the development of complete streets. (MPSP/SO)

General Plan, Mobility - Circulation System Element
Page: 2-167 Policy: M-1.3.5

Multi-Jurisdictional Transportation Corridors. The City shall work with adjacent jurisdictions to identify existing and future transportation corridors that should be linked across jurisdictional boundaries so that sufficient right-of-way may be preserved. (IGC)

General Plan, Mobility - Circulation System Element
Page: 2-167 Policy: M-1.3.6

Regional Transportation Planning. The City shall continue to actively participate in Sacramento Area Council of Government's (SACOG's) regional transportation planning efforts to coordinate priorities with neighboring jurisdictions and continue to work with the Sacramento Regional Transit District (RT) and the California Department of Transportation (Caltrans) on transportation planning, operations, and funding. (IGC/ FB)

General Plan, Mobility - Circulation System Element
Page: 2-167 Policy: M-1.3.7

Increase Vehicle Occupancy. The City shall work with a broad range of agencies (e.g., SACOG, SMAQMD, Sacramento RT, Caltrans) to encourage and support programs that increase vehicle occupancy including the provision of traveler information, shuttles, preferential parking for carpools/vanpools, transit pass subsidies, and other methods. (MPSP/PI)

General Plan, Mobility - Circulation System Element
Page: 2-167 Policy: M-1.4.1

Automobile Commute Trip Reduction. The City shall encourage employers to provide transit subsidies, bicycle facilities, alternative work schedules, ridesharing, telecommuting and work-at-home programs, employee education, and preferential parking for carpools/vanpools. (JP/PI)

General Plan, Mobility - Circulation System Element
Page: 2-168 Policy: M-1.4.2

Off-Peak Deliveries. The City shall encourage business owners to schedule deliveries at off-peak traffic periods. (JP/PI)

General Plan, Mobility - Circulation System Element
Page: 2-168 Policy: M-1.4.4

Facilities for Emerging Technologies. The City shall assist in the provision of support facilities such as alternative fueling stations (e.g., electric and hydrogen) for emerging technologies. (RDR/JP)

General Plan, Mobility - Circulation System Element
Page: 2-168 Policy: M-1.5.1

Use of Public Right-of-Way. The City shall provide for the use of public right-of-way, including parking facilities at major transit stations and employment centers, for support facilities such as alternative fueling stations in urban centers and other areas where appropriate. (RDR/SO)

General Plan, Mobility - Circulation System Element
Page: 2-168 Policy: M-1.5.2

Public-Private Transportation Partnerships. The City shall provide incentives for and cooperate with public-private transportation partnerships (such as car sharing companies) to establish pilot programs within the Central City, urban centers, employment centers, and other appropriate areas, to reduce single-occupant vehicle use. (IGC/JP)

General Plan, Mobility - Circulation System Element
Page: 2-169 Policy: M-1.5.3

High Emission Vehicle Buy-Back. The City shall support the efforts of the Sacramento Air Quality Management District and other agencies and organizations that have buy-back programs for high emissions vehicles. (IGC/JP)

General Plan, Mobility - Circulation System Element
Page: 2-169 Policy: M-1.5.4

Neighborhood Electric Vehicles. The City shall encourage developments and street systems that support the use of Neighborhood Electric Vehicles (NEV).(RDR/JP)

General Plan, Mobility - Circulation System Element
Page: 2-169 Policy: M-1.5.5

Provide Fair Share of Intelligent Transportation Systems Improvements. The City shall coordinate with Caltrans and provide a fair share of funding to implement Intelligent Transportation Systems improvements on the following freeway segments, upon mutual agreement of terms between the City and Caltrans.

- Interstate 5: Arena Boulevard to I-80
- Interstate 5: I-80 to West El Camino Avenue
- State Route 50: Freeport Boulevard to State Route 99
- State Route 50: 59th Street to 65th Street
- State Route 50: Howe Avenue to Watt Avenue
- State Route 51 (Capital City Freeway): Watt Avenue
- to I-80
- State Route 51 (Capital City Freeway): Arden Way to
- El Camino Avenue
- State Route 99: Broadway to 12th Avenue (FB/IGC)

General Plan, Mobility - Circulation System Element
Page: 2-169 Policy: M-1.5.6

Pedestrian Master Plan. The City shall maintain and implement a Pedestrian Master Plan that carries out the goals and policies of the General Plan and defines: the type and location of pedestrian-oriented streets and pathways; standards for sidewalk width, improvements, amenities, and street crossings; the schedule for public improvements; and developer responsibilities. All new development shall be consistent with the applicable provisions of the Pedestrian Master Plan. (MPSP)

General Plan, Mobility - Circulation System Element
Page: 2-171 Policy: M-2.1.1

Sidewalk Design. The City shall require that sidewalks wherever possible be developed at sufficient width to accommodate pedestrians including the disabled; a buffer separating pedestrians from the street and curbside parking; amenities; and allow for outdoor uses such as cafes. (MPSP)

General Plan, Mobility - Circulation System Element
Page: 2-171 Policy: M-2.2.1

City and County of San Francisco

One of the leaders in green policies, San Francisco acknowledges its contribution to climate change and has incorporated policies that reduce its emissions.

Reduce occupational health hazards for City staff as well as reduce exposure of City residents and visitors to potentially toxic chemicals by purchasing products for use in City operations that do not harm human health or the environment.

Environmentally Preferable Purchase Ordinance
Chapter: 2 Section: 201 Goal: 1

Reduce San Francisco's contribution to global climate change by purchasing products that lead to a reduction in greenhouse gas emissions from Commodities.

Environmentally Preferable Purchase Ordinance
Chapter: 2 Section: 201 Goal: 2

Protect the quality of San Francisco's ground and surface waters by eliminating the use of chemicals known to contaminate local water resources through toxicity, bioaccumulation or persistence;

Environmentally Preferable Purchase Ordinance
Chapter: 2 Section: 201 Goal: 4

Preserve resources locally and globally through purchasing practices that include:

(i) Maximizing water and energy efficiency and favoring renewable energy sources;
(ii) Maximizing post consumer recycled content and readily recyclable or compostable materials;
(iii) Favoring long-term use through product durability, repairability, and refuse; and
(iv) Considering life cycle economics of a product that includes manufacture, transportation, use and disposal.

Environmentally Preferable Purchase Ordinance
Chapter: 2 Section: 201 Goal: 5

San Luis Obispo Council of Governments

San Luis Obispo Council of Governments has a cutting edge Preliminary Sustainable Communities Strategy to reduce its GHG emissions.

This early SCS provides an excellent example of the types of policies that could be included in Orange County's and SCAG's SCS to reduce the impacts associated with climate change while achieving the co-benefits of more attractive and livable neighborhoods and protection of important open space areas.

Reduce vehicle miles of travel related emissions by encouraging the use of public transit and other alternative forms of transportation by supporting and encouraging the adoption of general plans and zoning that promote more compact communities.

Preliminary Sustainable Communities Strategy
Page: 2-7 Policy: PSCS 4

Support compact, mixed use, and infill development in target development areas and within 1/3 mile of major transit stops and centers; and, encourage incentives such as funding, flexible standards, and streamlined permit processing for mixed use and affordable housing.

Preliminary Sustainable Communities Strategy
Page: 2-7 Policy: PSCS 5

Develop safe, reliable and economical transportation choices to decrease household transportation costs, reduce our nation's dependence on foreign oil, improve air quality, reduce greenhouse gas emissions, and promote public health.

Preliminary Sustainable Communities Strategy
Page: 2-7 Policy: PSCS 6

Expand location- and energy-efficient housing choices for people of all ages, incomes, races, and ethnicities to increase mobility and lower the combined cost of housing and transportation.

Preliminary Sustainable Communities Strategy
Page: 2-7 Policy: PSCS 7

Target funding toward existing communities to improve the efficiency of public works investments and increase community revitalization through such strategies as providing for transit oriented, mixed-use development, land recycling, and safeguarding rural landscapes.

Preliminary Sustainable Communities Strategy
Page: 2-7 Policy: PSCS 9

Advocate “context sensitive solutions” in all aspects of project development to ensure community concerns are integrated in project design and construction.

Preliminary Sustainable Communities Strategy
Page: 2-7 Policy: PSCS 12

Maintain and enhance quality aesthetic experiences along transportation corridors and surrounding landscapes through mitigation planting, urban streetscape improvements, removal of billboards, and other visual enhancements.

Preliminary Sustainable Communities Strategy
Page: 2-7 Policy: PSCS 13

Protect important farmland, valuable habitats, and natural resources through acquisitions, setbacks, easements, and environmental mitigation programs.

Preliminary Sustainable Communities Strategy
Page: 2-7 Policy: PSCS 14

Strategies from the Preliminary Sustainable Communities Strategy

1. Reduce travel times and trips by encouraging local jurisdictions to provide a wide range of housing types and sizes while providing employment opportunities within each planning subregion.

2. Support the incorporation of design features and infrastructure in new projects that enable access by transit, bicycling, and walking.

3. Support the implementation of programs and projects that enhance multimodal transportation choices, limit automobile oriented development, and promote pedestrian scale communities.

4. Advocate establishing concentrated development and minimum densities along transit corridors.

5. Support the establishment of minimum residential densities on appropriate sites in urban areas where resources are available.

6. Seek change in the fiscal relationships and tax distribution mechanisms between the State and local agencies to provide adequate funding that will support good land use and development practices.

7. Give a high priority to funding improvements addressing existing deficiencies to the roadway system in or near target development areas and central business districts.

8. Advocate projects include features that minimize the need for additional vehicle travel.

9. Encourage jurisdictions to provide streamlined installation and permitting procedures for vehicle charging facilities.

10. Continue funding project scoping studies and improvements that benefit the existing transportation system; maintain and encourage a sense of community, and enhance the streetscape.

11. Review and comment on major plans and local land development proposals, encouraging livable community design concepts, and enhanced multi- and intermodal components, including pedestrian, bicycle, and public transit.

12. Advocate local and regional agencies use analytical tools and models to assess and compare standard land use practices with smart growth principles prior to major plan updates.

13. Promote the direction of most new residential development away from rural areas and concentrate it in higher density residential locations near major transportation corridors and transit routes, where resources and services are available.

14. Promote the development of new multi-family projects that include Transportation Demand Management (TDM) strategies, such as reduced parking for affordable, workforce, or senior housing projects, subsidized public transportation passes, car sharing, vanpools, shuttles, or ride-matching programs, based on site.

15. Encourage new development to construct paths that connect land uses and other nonmotorized routes, safe road crossings at major intersections and secure, weatherproof bicycle parking and storage facilities, and long-term maintenance of such facilities.

16. Encourage local jurisdictions to establish and maintain a mix of transit, bicycle, and pedestrian access choices.

17. Work with communities and developers to fund additional parking where needed, for example, through in-lieu parking fee programs.

18. Explore decoupling of parking and housing and commercial development in order to allocate the true cost of parking directly to users.

19. Support the location of new mixed use projects, community and neighborhood commercial centers near major activity nodes and transportation corridors. Community commercial centers should provide goods and services that residents have historically had to travel outside of the community to obtain.

20. Encourage new office development and concentrations of residential uses near major transportation facilities and corridors.

21. Support new development in the mixed-use and medium- and high-density land use categories located within ¼-mile of a transit node, existing bus route, or park and ride facility with regularly scheduled, daily service at a minimum density of 20 dwelling units per acre.

22. Work with local jurisdictions and Caltrans to implement a Scenic Byway and Scenic Highway designation for state routes where applicable.

23. Coordinate with Caltrans and local jurisdictions and other entities to encourage the development of measures that provide a “sense of place” along transportation corridors through the use of distinctive signage, landscaping, building form and setbacks, walkways, and an appropriate mixture of land uses.

24. Work with Caltrans, local jurisdictions, and transportation providers to develop transportation facilities and amenities that fit within the unique character of the community, providing landscaped medians and walkways along major multi-lane arterial highways, streets, and roadways.

25. Coordinate with Caltrans and local jurisdictions to implement measures to protect and enhance the distinctiveness of the county's character with appropriate landscape and screening measures along major transportation rights -of-way with native vegetation in rural areas and theme vegetation in urban areas.

26. Promote the rezoning of existing urban areas where resources and services are available to accommodate residential densities at least 15 units per acre or more to provide for low- and very-low income housing.

27. Work with the County, cities and transit providers to identify transit nodes and target development areas for mixed-use development and promote transit oriented development through the following where appropriate:

a. Rezoning of commercial properties to multi-family residential and/or mixed-use,
b. Flexible zoning and standards for multi-family housing and mixed-use development,
c. Flexible minimum parking and building height limitations,
d. Density bonus programs,
e. Design guidelines for private and public spaces, and
f. Incentives for redevelopment of underutilized areas.

28. Support new or expanded commercial, industrial, public, or mixed use projects with 25 employees or more that provide TDM programs such as parking cash-out, subsidized transit passes, ridesharing incentives, vanpools, employee showers, and bicycle parking and storage facilities.

29. Support the reduction of parking requirements in areas such as central business districts where a variety of uses and services are planned in close proximity to each other and to transit.

30. Identify planning and design standards that local agencies can implement to offer flexible travel alternatives within and between the communities in the region.

31. Encourage new construction to provide preferential parking and/or no-cost parking for vanpool, carpool, and alternative fuel vehicles.

32. Assess how transportation nodes and corridors may be impacted by climate change; identify areas most vulnerable to these impacts, and develop reasonable and rational risk reduction strategies. Special attention should be paid to the most vulnerable communities impacted by climate change in all studies.

33. Maintain and expand open space acquisition and mitigation program to protect environmentally sensitive areas and enhance community separators.

34. Investigate regional applicability of alternative technologies, such as cool pavement materials, green concrete additives, solar energy in rights-of-way, recycled pavement, pervious pavement, provisions for qualified low-emissions vehicles, and other measures.

Santa Monica recently updated its General Plan to include many sustainable policies related to housing, transit and climate change, among other things.

Santa Monica's newly adopted Land Use and Transportation Element (LUCE) is a paradigm shift from the 1984 plan, with a focus on ensuring a sustainable City. It does this while aggressively protecting existing neighborhoods. New development is appropriately directed to major transit corridors and transit villages where travel alternatives exist and density can be accommodated. Energy efficiency policies are also exemplary with a focus on growing a green economy, achieving zero waste, and zero net energy for new development as soon as feasible. Most remarkable, the LUCE establishes a Community Benefits goal, policy, and programs that require new development to contribute to the communities core social, physical, and transportation goals. See Goal LU10 and policies LU10.1 – 4. The LUCE is a plan worth reading.

LU1.1 Neighborhood Protection.
Establish land use policy designations and incentives which redirect intensive residential investment pressure away from existing neighborhoods to boulevards and districts served by transit.

General Plan, Land Use Element
Page: 2.1-11 Policy: LU 1.1

LU1.2 Neighborhood Conservation.
Establish effective neighborhood conservation strategies to manage and control the type, rate and pace of change within existing neighborhoods to conserve their character, design and pattern of development and the high quality living environment they provide for a diversity of households, by establishing Neighborhood Conservation Overlay Districts, measures for retention of courtyard housing, modification of demolition regulations and of development standards, and coordinated parking management programs.

General Plan, Land Use Element
Page: 2.1-11 Policy: LU 1.2

LU1.4 Retention of Existing Structures.
Encourage and incentivize preservation of historic structures and older buildings that add to the character of

residential districts through the development of programs such as Transfer of Development Rights (TDR) and conservation easements.

General Plan, Land Use Element
Page: 2.1-11 Policy: LU 1.4

LU1.5 Design Compatibility.
Require that new infill development be compatible with the existing scale, mass and character of the residential neighborhood. New buildings should transition in size, height and scale toward adjacent residential structures.

General Plan, Land Use Element
Page: 2.1-11 Policy: LU 1.5

LU1.6 Complete Green Streets and Open Spaces.
Encourage neighborhood streets to function as neighborhood gathering places that promote sociability and human interaction, and feature pedestrian- and bicycle-friendly design, within a rich canopy of street trees and parkway landscaping.

General Plan, Land Use Element
Page: 2.1-11 Policy: LU 1.6

LU2.1 Redirect Growth.
Redirect growth away from residential neighborhoods onto transit corridors, where new uses are served by convenient transportation networks.

General Plan, Land Use Element
Page: 2.1-11 Policy: LU 2.1

LU2.2 Transit Villages.
Capitalize on the Expo Light Rail stations to create vital new complete sustainable neighborhoods with transit as a focal element, green connections and pathways, a variety of housing types and jobs, enhanced creative arts and institutions, and local-serving retail and services.

General Plan, Land Use Element
Page: 2.1-12 Policy: LU 2.2

LU2.3 Activity Centers.
Create vibrant activity centers at select transit crossroads along the boulevards with attractive spaces for meeting, local shopping, and living that include opportunities for affordable and workforce housing for new and existing residents.

General Plan, Land Use Element
Page: 2.1-12 Policy: LU 2.3

LU2.4 Affordable and Workforce Housing.
Create diverse housing options along the transit corridors and in the activity centers, replacing some commercial potential with additional affordable and workforce housing, and encouraging affordable workforce housing near the transit stations.

General Plan, Land Use Element
Page: 2.1-12 Policy: LU 2.4

LU2.5 Vehicle Trip Reduction.
Achieve vehicle trip reduction through comprehensive strategies that designate land uses, establish development and street design standards, implement sidewalk, bicycle and roadway improvements, expand transit service, manage parking, and strengthen Transportation Demand Management programs that support accessibility by transit, bicycle and foot, and discourage vehicle trips at a district-wide level. Monitor progress using tools that integrate land use and transportation factors. Increase bicycle and pedestrian connectivity in transit districts and adjust bus and shuttle services to ensure success of the transit system.

General Plan, Land Use Element
Page: 2.1-12 Policy: LU 2.5

LU4.2. Uses to Meet Daily Needs.
Encourage uses that meet daily needs such as grocery stores, local-serving restaurants and other businesses and activities within walking distance of residences to reduce the frequency and length of vehicle trips.

General Plan, Land Use Element
Page: 2.1-13 Policy: LU 4.2

LU4.4 Pedestrian-Oriented Design.
Engage pedestrians with ground floor uses, building design, site planning, massing and signage that promote vibrant street life and emphasize transit and bicycle access.

General Plan, Land Use Element
Page: 2.1-13 Policy: LU 4.4

LU4.6 Open Space.
Provide open space and green connections near residences that are part of an expanding and comprehensive system of passive and active open space and complete street design emphasizing interconnectivity, recreation, and gathering spaces.

General Plan, Land Use Element
Page: 2.1-13 Policy: LU 4.6

LU7.1 Workforce Housing.
Encourage workforce housing near the hospitals, primarily to serve healthcare employees.

General Plan, Land Use Element
Page: 2.1-15 Policy: LU 7.1

LU7.2 Trip Reduction.
Work with the hospitals to create a TDM District and programs to comprehensively address parking and trip reduction goals, and to develop convenient connections between the hospitals and the Memorial Park Light Rail Station.

General Plan, Land Use Element
Page: 2.1-15 Policy: LU 7.2

LU7.4 Responsible Expansion.
Allow responsible expansion of the hospitals and medical uses that is sensitive to the surrounding residential neighborhoods and coordinated with comprehensive TDM and trip reduction strategies.

General Plan, Land Use Element
Page: 2.1-15 Policy: LU 7.4

LU8.2 Comprehensive Parking Management.
Comprehensively manage parking and parking policies to address housing affordability, congestion management and air quality goals. Facilitate the creation of shared parking, particularly within activity centers, transit districts, and near Expo Light Rail stations. Use pricing and other innovative strategies to manage parking availability.

General Plan, Land Use Element
Page: 2.1-16 Policy: LU 8.2

LU8.3 Pedestrian, Bicycle and Transit Connections.
Ensure pedestrian, bicycle and transit mobility by creating facilities for comfortable walking throughout the City, a complete and safe bicycle network, and convenient and frequent transit service that will make transit an attractive option for all types of trips.

General Plan, Land Use Element
Page: 2.1-16 Policy: LU 8.3

LU8.4 Roadway Management.
Prioritize investment in amenities for pedestrian, bicycle, and transit movement to facilitate green connections and mobility.

General Plan, Land Use Element
Page: 2.1-16 Policy: LU 8.4

LU 9.1 Performance Measures tied to LUCE Goals.
Establish performance measures tied to LUCE goals that address transportation, housing, neighborhood conservation, and a sustainable economy.

General Plan, Land Use Element
Page: 2.1-16 Policy: LU 9.1

Goal LU10: Community Benefits.
Require new development to contribute directly to the community's core social, physical, and transportation goals through mechanisms such as community benefits.

General Plan, Land Use Element
Page: 2.1-17 Goal: LU 10

LU10.1 Maximum Allowable Base Height.
Establish a ministerial maximum allowable building height and density for each commercial land use designation as a baseline.

General Plan, Land Use Element
Page: 2.1-17 Policy: LU 10.1

LU10.2 Benefits Tied to Community Values.
Require new development that requests height above the base to provide measurable benefits to foster complete neighborhoods and support the goals of the LUCE, including reducing vehicle trips and GHG emissions, maintaining diversity, and promoting affordable and workforce housing.

General Plan, Land Use Element
Page: 2.1-17 Policy: LU 10.2

LU10.3 Affordable and Workforce Housing.
Focus on additional affordable and workforce housing with an emphasis on employment centers close to transit facilities.

General Plan, Land Use Element
Page: 2.1-17 Policy: LU 10.3

LU10.4 Discretionary Review.
Require a discretionary review process with community input for projects above the base height except for 100 percent affordable housing projects. Inclusion of community benefits and specific findings will be required for conditional approval above the base height and density.

General Plan, Land Use Element
Page: 2.1-17 Policy: LU 10.4

LU11.6 Affordable Housing Incentives.
Encourage projects providing exclusively very low-, low-, and moderate-income housing through incentives such as a streamlined permit process, flexible development and parking standards, density bonuses, and financial assistance.

General Plan, Land Use Element
Page: 2.1-18 Policy: LU 11.6

LU12.4 Sustainability.
Recognize adaptive reuse as a sustainable policy, and encourage sustainable technologies, such as solar panel installation and energy retrofitting, that respect character-defining features.

General Plan, Land Use Element
Page: 2.1-18 Policy: LU 12.4

LU15.6 Establish Guidelines for Boulevards and Districts.
Establish design guidelines and implementation strategies that encourage the City's primary boulevards to evolve over time from an auto-oriented, suburban model to a mixed-use commercial/residential model that provides goods and services that are within walking distance of residences and are served by a variety of transit modes with convenient service frequency.

General Plan, Land Use Element
Page: 2.1-21 Policy: LU 15.6

LU15.7 Street–Level Pedestrian-oriented Design.
Buildings in the mixed-use and commercial areas should generally be located at the back of the sidewalk or the property line (street front) and include active commercial uses on the ground floor. Where a residential use occupies the ground floor, it should be set back from the property line, be located one half level above the street or incorporate design features to provide privacy for the unit. Front doors, porches and stoops are encouraged as part of orienting residential units to the street.

General Plan, Land Use Element
Page: 2.1-21 Policy: LU 15.7

LU15.9 Pedestrian-oriented Design.
Buildings should incorporate pedestrian-scaled elements with durable, quality materials and detailing located on the lower stories adjacent to the pedestrian.

General Plan, Land Use Element
Page: 2.1-21 Policy: LU 15.9

LU3.1 Reduce Regional-Serving Commercial Uses.
Reduce regional office and commercial uses and encourage smaller floor plate office uses, housing and local-serving retail and service.

General Plan, Land Use Element
Page: 2.1-22 Policy: LU 3.1

LU15.12 Ground Floor Gathering Spaces.
Buildings should have their primary façades located at the back side of the sidewalk or on the property line. However, to encourage a well-landscaped streetscape with places for people to gather, small landscaped, people-gathering spaces are encouraged where they will attract people without interrupting the pedestrian retail experience. The intent is to have an overall ground coverage of 80 percent on each block.

General Plan, Land Use Element
Page: 2.1-22 Policy: LU 15.12

LU15.15 Preserve Light, Air and Privacy Between Commercial and Residential Properties.
Buildings that share a property line with a residentially-designated property are required to be set back 10 feet from the abutting residential property line. Further, to assure privacy and access to sunlight and air for the adjacent residential use, except for permitted projections, all new buildings and additions to existing buildings shall not project above a building envelope commencing at 25 feet in height above the property line abutting the residential property and from that point, extending at a 45-degree angle from vertical toward the interior of the site.

General Plan, Land Use Element
Page: 2.1-22 Policy: LU 15.15

LU15.16 Urban Form-Street Grid in Residential Neighborhoods.
Maintain and enhance the classic interconnected street grid and its multiple options for pedestrian circulation in the residential neighborhoods. Enhance the continuity of sidewalks by limiting curb cuts and driveways from the street.

General Plan, Land Use Element
Page: 2.1-22 Policy: LU 15.16

LU15.17 Urban Form-Mass and Scale in Residential Neighborhoods.
Establish development standards requiring new buildings in residential neighborhoods to be compatible in mass and scale with the balance of the structures on the street, with tall structures transitioning in height to adjacent lower buildings.

General Plan, Land Use Element
Page: 2.1-22 Policy: LU 15.17

LU15.18 Urban Form-Alleys and Side Streets in Residential Neighborhoods.
Minimize the visual impact of the automobile in residential front yards by requiring the use of alleys and/or side streets for access, where they are available. In new construction where alley access is not available, the garage is encouraged to be located underground or in the rear half of the lot. When the garage must face the street, it shall be recessed no less than 10 feet from the front elevation of the residential structure. Front doors, porches and windows in habitable rooms should face toward the sidewalk.

General Plan, Land Use Element
Page: 2.1-22 and 23 Policy: LU 15.18

LU15.19 Boulevard Medians.
Landscaped medians should be included on the boulevards where designated to add to the "greening" of the boulevard, to reduce the apparent width of the street and to provide a pedestrian harbor in the middle of the crosswalk.

General Plan, Land Use Element
Page: 2.1-23 Policy: LU 15.1

LU16.1 Design Buildings with Consideration of Solar Patterns.
The designs of new buildings need to consider solar patterns and the potential impact of building mass on habitable outdoor spaces and adjacent structures in order to minimize shadows on public spaces at times of the day and year when warmth is desired, and provide shade at times when cooling is appropriate, and minimize solar disruption on adjacent properties.

General Plan, Land Use Element
Page: 2.1-23 Policy: LU 16.1

LU16.2 Preserve Solar Access to Neighborhoods.
The same development standard that is adopted to require a step down building envelope to transition commercial buildings to lower adjacent residential properties also needs to assure solar access to the residential buildings.

General Plan, Land Use Element
Page: 2.1-23 Policy: LU 16.2

LU17.3 Freeway Capping.
Pursue capping sections of the I-10 Freeway to restore connections between neighborhoods, provide direct access, and create new parkland.

General Plan, Land Use Element
Page: 2.1-24 Policy: LU 17.3

LU17.4 Cooperative Facilities Use.
Continue to seek cooperative agreements with schools, institutions and other public agencies to increase open and recreational space accessible to the community.

General Plan, Land Use Element
Page: 2.1-24 Policy: LU 17.4

LU17.5 Access for all Residents.
Encourage access to open space for all residents through expansion of the larger open space system with the ultimate goal of providing open and recreational spaces within a ¼ mile radius of all residences in the City.

General Plan, Land Use Element
Page: 2.1-24 Policy: LU 17.5

LU19.3 Streets as Open Space.
As streets are the City's most extensive open space network, seek opportunities to expand the use of streets, alleys and other public rights-of-way for open space, passive recreational use and landscaping.

General Plan, Land Use Element
Page: 2.1-25 Policy: LU 19.3

LU19.4 Retrofit to Meet Evolving Needs.
Retrofit streets to meet the City's evolving infrastructure and sustainability needs including energy systems, water conveyance and storm water retention, transportation infrastructure, utilities and high-capacity information systems.

General Plan, Land Use Element
Page: 2.1-25 Policy: LU 19.4

LU20.1 Continuous Tree Canopy.
Continue to enhance the tree canopy and coverage throughout the community by coordinated tree planting according to the Urban Forest Master Plan.

General Plan, Land Use Element
Page: 2.1-25 Policy: LU 20.1

Proactively cooperate with the State of California to implement AB 32, which calls for reducing GHG to 1990 levels by 2020 and 80 percent below 1990 levels by 2050.

General Plan, Sustainability and Climate Change
Page: 3.1-12 Policy: S 1.1

Prepare a GHG emissions inventory approximately every five years using accounting standards approved by the International Council for Local Environmental Initiatives (ICLEI) and the California Air Resources Board (CARB).

General Plan, Sustainability and Climate Change
Page: 3.1-12 Policy: S 1.2

Strive to achieve the following GHG reduction targets:

- Reduce community-wide GHG emissions to 15 percent below 1990 levels by 2015.
- Reduce emissions from municipal operations by 30 percent below 1990 levels by 2015.

General Plan, Sustainability and Climate Change
Page: 3.1-12 Policy: S 1.3

Prepare a Climate Action Plan every 10 years to address citywide GHG emissions.

General Plan, Sustainability and Climate Change
Page: 3.1-12 Policy: S 1.4

Monitor the effectiveness of the City's climate action plans against its periodic GHG emissions inventories.
General Plan, Sustainability and Climate Change
Page: 3.1-12 Policy: S 1.5

Prepare a Community Urban Forest Management Plan and update it a minimum of every 10 years to assist with local sequestration of carbon dioxide emissions.
General Plan, Sustainability and Climate Change
Page: 3.1-13 Policy: S 1.6

Consider incorporating the No Net New Trips policy into the City's CEQA environmental analysis and require mitigation of significant impacts for projects that will generate new vehicle trips.
General Plan, Sustainability and Climate Change
Page: 3.1-13 Policy: S 2.9

Actively strive to implement the City's "zero net" electricity consumption goal by 2020 through a wide variety of programs and measures, including the generation of renewable energy in the City and energy efficiency measures.
General Plan, Sustainability and Climate Change
Page: 3.1-14 Policy: S 3.1

Consider a requirement for all new buildings to use "zero net" energy by 2020.
General Plan, Sustainability and Climate Change
Page: 3.1-14 Policy: S 3.2

Explore creating an ordinance to require solar installations, both photovoltaic and hot water, on new construction projects.
General Plan, Sustainability and Climate Change
Page: 3.1-14 Policy: S 4.1

Seek to achieve all new municipal construction to achieve LEED Gold certification and all existing municipal facilities to achieve Energy Star certification wherever feasible.
General Plan, Sustainability and Climate Change
Page: 3.1-15 Policy: S 5.2

Continue to engage in community education and outreach, including providing information about programs, policies, and best practices on the Office of Sustainability and the Environment Web Site.
General Plan, Sustainability and Climate Change
Page: 3.1-15 Policy: S 5.3

Consider a requirement that all new construction must utilize solar water heaters.
General Plan, Sustainability and Climate Change
Page: 3.1-15 Policy: S 5.4

Encourage shade trees on south- and west-facing sides of all new buildings to reduce building energy loads.
General Plan, Sustainability and Climate Change
Page: 3.1-15 Policy: S 5.5

Encourage cool roofs or green roofs on new buildings.
General Plan, Sustainability and Climate Change
Page: 3.1-15 Policy: S 5.6

Encourage cool paving on new plazas and parking lots.
General Plan, Sustainability and Climate Change
Page: 3.1-15 Policy: S 5.7

Seek to complete energy and water retrofits on all existing municipal buildings by 2020.
General Plan, Sustainability and Climate Change
Page: 3.1-16 Policy: S 7.5

Seek a zero solid waste policy for municipal operation.
General Plan, Sustainability and Climate Change
Page: 3.1-16 Policy: S 7.6

Develop a Zero Waste Strategic Plan with an aggressive target for waste diversion by 2030.
General Plan, Sustainability and Climate Change
Page: 3.1-16 Policy: S 8.2

Continue to implement the ban on non-recyclable plastic food containers and continue to pursue a ban on plastic bags.
General Plan, Sustainability and Climate Change
Page: 3.1-16 Policy: S 8.3

Support the expansion of a green economy that focuses on the following: energy technologies; water conservation; green building construction, design and architecture practices; waste management; policy development related to sustainability; and other similar green businesses.
General Plan, Sustainability and Climate Change
Page: 3.1-17 Policy: S 10.1

Provide incentives to employers that provide green-related jobs. Such incentives may include tax benefits, permitting priorities, reduced application fees and other similar incentives.
General Plan, Sustainability and Climate Change
Page: 3.1-17 Policy: S 10.2

Market Santa Monica as a green tourist destination by encouraging green retail and sustainable tourism industry practices.
General Plan, Sustainability and Climate Change
Page: 3.1-17 Policy: S 10.3

Form partnerships with businesses, nonprofits and stakeholders to address the needs of emerging green businesses within the community.
General Plan, Sustainability and Climate Change
Page: 3.1-17 Policy: S 10.4

Support public health by promoting active living and supporting walking and safe bike routes throughout the city.
General Plan, Circulation
Page: 4.0-24 Policy: T 1.1

Manage the City's transportation system to meet overall CO_2 and Vehicle Miles Traveled reduction goals.
General Plan, Circulation
Page: 4.0-24 Policy: T 4.1

Ensure that travel by bicycle and transit is time-competitive with autos.
General Plan, Circulation
Page: 4.0-24 Policy: T 4.2

Require large property development (defined as greater than one typical city block) to provide through access for bicyclists and pedestrians.
General Plan, Circulation
Page: 4.0-38 Policy: T 9.9

Coordinate with the SMMUSD to identify safe bicycling routes to each of its schools.

General Plan, Circulation

Page: 4.0-38 Policy: T 10.4

Strive to increase bicycle commuting through information that identifies personalized routes.

General Plan, Circulation

Page: 4.0-48 Policy: T 11.2

At major transit stops, prioritize land uses and patterns that generate high transit ridership.

General Plan, Circulation

Page: 4.0-49 Policy: T 13.1

Develop strategies to maximize off-peak use of transit.

General Plan, Circulation

Page: 4.0-50 Policy: T 4.3

Encourage all schools and major employers to provide prepaid access on the Big Blue Bus (BBB) and Metro systems for all of their students and employees.

General Plan, Circulation

Page: 4.0-50 Policy: T 14.2

Reduce automobile trips starting or ending in Santa Monica, especially during congested periods, with the goal of keeping peak period trips at or below 2009 levels.

General Plan, Circulation

Page: 4.0-55 Policy: T 15.1

Strive toward carbon neutrality by encouraging reduced Vehicle Miles Traveled (VMT) per capita.

General Plan, Circulation

Page: 4.0-56 Policy: T 18.1

Consider eliminating direct and hidden subsidies of motor vehicle parking and driving, making the true costs of parking and driving visible to motorists.

General Plan, Circulation

Page: 4.0-64 Policy: T 21.2

Consider parking pricing and commuter parking limits as tools for managing congestion.

General Plan, Circulation

Page: 4.0-64 Policy: T 21.6

Promote programs that reduce residents' average vehicle ownership, including car-sharing and pricing parking separately from housing.

General Plan, Circulation

Page: 4.0-71 Policy: T 22.4

In new multi-family and commercial buildings, encourage building owners to lease parking spaces separately from residential units and commercial space, and allow residents of nearby buildings to lease these spaces at comparable rates as building tenants.

General Plan, Circulation

Page: 4.0-71 Policy: T 23.1

In new multi-family and commercial buildings, encourage owners to make parking spaces available to qualified car-share operators, and allow public access to the car-share vehicles.

General Plan, Circulation

Page: 4.0-71 Policy: T 23.2

In new multi-family buildings, the City should encourage developers to enroll residents in a qualified car-share program.

General Plan, Circulation
Page: 4.0-71 Policy: T 23.3

On properties where parking is leased separately from residences, exclude the property from participation in any existing residential parking permit zone.

General Plan, Circulation
Page: 4.0-71 Policy: T 23.4

Use price as the primary tool for achieving parking availability targets.

General Plan, Circulation
Page: 4.0-72 Policy: T 24.2

Encourage technologies that reduce the physical space needed for parking, such as mechanical lift systems.

General Plan, Circulation
Page: 4.0-72 Policy: T 25.6

Encourage installation of electrical outlets in loading zones, including signage, to reduce vehicle idling associated with operating refrigeration for delivery trucks.

General Plan, Circulation
Page: 4.0-72 Policy: T 25.7

Ensure that public parking prices reflect the true cost of automobile parking.

General Plan, Circulation
Page: 4.0-73 Policy: T 26.2

Use a portion of revenues raised from parking charges to achieve more sustainable transportation choices including transit, walking and biking.

General Plan, Circulation
Page: 4.0-73 Policy: T 26.3

Use parking pricing as a tool to manage congestion.

General Plan, Circulation
Page: 4.0-73 Policy: T 26.6

Consider allowing developers to meet their minimum parking requirements via shared parking between uses, payment of in-lieu fees, or off-site parking within a reasonable walking distance.

General Plan, Circulation
Page: 4.0-73 Policy: T 26.7

All construction and demolition projects the total costs of which are, or are projected to be, $50,000 or greater, or are 1,000 square feet or greater (“Covered Projects”) shall be required to divert at least sixty (60) percent of all project-related construction and demolition material in compliance with this Chapter.

Municipal Code
Chapter: 8 (Green Building) Policy: 8.108.120(a)

Climate Action Plan

Prepare and maintain a Climate Action Plan that will include measures to reduce GHG emissions from municipal, business and community-wide sources; the first Climate Action Plan should have a goal of at least 30 percent reduction of municipal GHG from 1990 levels by 2030.

General Plan, Land Use Element
Page: 2.1-25

Solano County has unique partnerships between the energy and agricultural community.

Solano County's General Plan, while arguably mainly a model for counties that still have an agricultural base, contains numerous policies worth mention. These include policies directed at reducing greenhouse gas emissions and incorporation of public health concerns into land use planning and decision making. The plan has one of the first policies to promote carbon efficient farming, which may be relevant to more urban counties as the local grown movement gains ground.

Expand waste minimization efforts, including household recycling, food waste and green waste recycling, business paper recycling, and construction and demolition recycling. Require commercial and industrial recycling. Require building projects to recycle or reuse a minimum of 50 percent of unused or leftover building materials.

General Plan, Public Facilities Element
Page: PF 24 Policy: PF.I-29

Promote consistency and cooperation in air quality planning efforts.

General Plan, Public Health and Safety Element
Page: HS 72 Policy: HS.P-45

Coordinate with and provide incentives to agricultural producers to minimize the impacts of operations on air quality.

General Plan, Public Health and Safety Element
Page: HS 72 Policy: HS.P-46

Promote GHG emission reductions by supporting carbon efficient farming methods (e.g., methane capture systems, no-till farming, crop rotation, cover cropping, residue farming); installation of renewable energy technologies; protection of grasslands, open space, and farmlands from conversion to other uses; and encouraging development of energy-efficient structures.

General Plan, Public Health and Safety Element
Page: HS 72 Policy: HS.P-47

Adopt a trip reduction ordinance and encourage employers to develop practices that reduce employees' vehicle trips. Such practices include telecommuting, provision of bicycle facilities, and provision of shuttles to public transit.

General Plan, Public Health and Safety Element
Page: HS 72 Policy: HS.I-48

Require that when development proposals introduce new significant sources of toxic air pollutants, they prepare a health risk assessment as required under the Air Toxics "Hot Spots" Act (AB 2588, 1987) and, based on the results of the assessment, establish appropriate land use buffer zones around those areas posing substantial health risks.

General Plan, Public Health and Safety Element
Page: HS 72-73 Policy: HS.I-49

Develop a greenhouse gas emissions inventory according to the most recently established methodologies of the California Climate Action Registry or California Air Resources Board. At the time of writing this report the most recently established methodology is the California Climate Action Registry's General Reporting Protocol, Version 2.2.

General Plan, Public Health and Safety Element
Page: HS 73 Policy: HS.I-55

Develop a GHG emission reduction plan for Solano County and explore membership in the California Climate Action Registry. This should be done in conjunction with the County's Climate Action Plan found in HS.I-73.

General Plan, Public Health and Safety Element
Page: HS 73 Policy: HS.I-56

Comply with all federal and/or state GHG emission reduction targets to reduce the County's contribution to global climate change. The plan should include strategies to reduce vehicle miles traveled, energy consumption, and other sources of GHGs within the county. This should be done in conjunction with the County's Climate Action Plan found in HS.I-73.

General Plan, Public Health and Safety Element
Page: HS 73-74 Policy: HS.I-57

Encourage agricultural best management practices regarding herbicide and pesticide use, odor control, fugitive dust control, and agricultural equipment emissions to minimize air quality impacts.

General Plan, Public Health and Safety Element
Page: HS 74 Policy: HS.I-58

Require the implementation of best management practices to reduce air pollutant emissions associated with the construction of all development and infrastructure projects.

General Plan, Public Health and Safety Element
Page: HS 74 Policy: HS.I-59

Require environmentally responsible government purchasing. Require or give preference to the purchase of products that reduce or eliminate indirect greenhouse gas emissions (e.g., giving preference to recycled products over products made from virgin materials).

General Plan, Public Health and Safety Element
Page: HS 74 Policy: HS.I-60

Minimize noise conflicts between current and proposed land uses and transportation networks by encouraging compatible land uses around critical areas with higher noise potential.

General Plan, Public Health and Safety Element
Page: HS 94 Policy: HS.P-52

Evaluate the potential effects of climate change on Solano County's human and natural systems and prepare strategies that allow the County to appropriately respond and adapt.

General Plan, Public Health and Safety Element
Page: HS 103 Policy: HS.P-523

Enable renewable energy sources to be produced from resources available in Solano County, such as solar, water, wind, and biofuels to reduce the reliance on energy resources from outside the county.

General Plan, Resource Element
Page: RS 56 Policy: RS.P-53

Reduce Solano County's reliance on fossil fuels for transportation and other energy-consuming activities.

General Plan, Resource Element
Page: RS 56 Policy: RS.P-54

Require the siting of energy facilities in a manner compatible with surrounding land uses and in a manner that will protect scenic resources.

General Plan, Resource Element
Page: RS 56 Policy: RS.P-58

Recognize the multiple functions of the natural environment for safety, recreation, protection from climate changes, and economic uses.

General Plan, Resource Element
Page: HS-5 Policy: HS.G-5

Prevent or correct upstream land use practices that contribute to increased rates of surface water runoff.

General Plan, Public Health and Safety Element
Page: HS-5 Policy: HS.G-5

Restore and maintain the natural functions of riparian corridors and water channels throughout the county to reduce flooding, convey stormwater flows, and improve water quality.

General Plan, Public Health and Safety Element
Page: HS-11 Policy: HS.P-1

Preserve open space and agricultural areas that are subject to natural flooding and are not designated for future urban growth; prohibit permanent structures in a designated floodway where such structures could increase risks to human life or restrict the carrying capacity of the floodway.

General Plan, Public Health and Safety Element
Page: HS-11 Policy: HS.P-2

Ensure that flood management policies that minimize loss of life and property also balance with environmental health considerations of the floodplain and therefore do not cause further erosion, sedimentation, or water quality problems in the floodplain area.

General Plan, Public Health and Safety Element
Page: HS-12 Policy: HS.P-9

Develop and adopt a Sea Level Rise Strategic Program for Solano County. The Sea Level Rise Strategic Program (SLRSP) will have three primary objectives. These include (1) investigate the potential effects of sea level rise on Solano County, (2) identify properties and resources susceptible to SLR in order to prioritize management strategies, and (3) develop protection and adaptation strategies to meet the county's and region's goals.

General Plan, Public Health and Safety Element
Page: HS-12 Policy: HS.P-10

Update the General Plan to incorporate DWR 200-year floodplain mapping and CVFPP measures once they are available. Include appropriate CVFPP measures within the County's Zoning Ordinance update to be completed after adoption of the General Plan.

General Plan, Public Health and Safety Element
Page: HS-12 Policy: HS.I-1

Revise the County Zoning Ordinance to:

- limit activities that contribute to increased rates of surface water runoff, such as overgrazing by livestock, clearing, and burning, which can reduce natural vegetative cover;
- promote recreational, open space, and agricultural uses of upstream watershed areas, where appropriate;
- limit the construction of extensive impermeable surfaces and promote the use of permeable materials for surfaces such as driveways, streets, parking lots, and sidewalks;
- require development in upstream watershed areas to follow best management practices for stormwater management, including on-site detention and retention basins, appropriate landscaping, and minimal use of impervious surfaces; and
- designate resource areas for preservation, including agriculture, wetlands, floodplains, recharge areas, riparian zones, open space, and native habitats.

General Plan, Public Health and Safety Element
Page: HS-15 Policy: HS.I-3

In review of new development projects, require disclosure of risk where proposed development would occur in flood risk areas. This disclosure may include notifying new residents in these areas and encouraging purchase of appropriate insurance.

General Plan, Public Health and Safety Element
Page: HS-17 Policy: HS.I-8

Seek an appropriate balance between preventing and fighting fires and retaining the County's valuable visual and natural resources.

General Plan, Public Health and Safety Element
Page: HS-44 Policy: HS.P-24

Update the Zoning Ordinance to limit development in areas of extreme, very high, and high wildfire risk.

Development within the extreme risk area will be limited to farm-related development served by private roads.

Land divisions within the very high and high risk areas will be restricted, unless: the availability of adequate water supply can be demonstrated and guaranteed; more than one access point for firefighting equipment can be provided; defensible space is permanently maintained around any buildings; and, fire-resistant materials are used in construction.

General Plan, Public Health and Safety Element
Page: HS-45 Policy: HS.I-26

Collaborate with fire districts to establish funding mechanisms, including impact fees to offset fire protection costs for new developments in areas of high wildfire risk.

General Plan, Public Health and Safety Element
Page: HS-45 Policy: HS.I-27

Create fire buffers along heavily traveled roads by promoting grazing, thinning, mowing, plowing, disking, or controlled burning of roadside grass. Coordinate with the California Department of Transportation to ensure that adequate fire buffers are established along state highways. Favor those methods that have the least impact on air quality, such as grazing.

General Plan, Public Health and Safety Element
Page: HS-47 Policy: HS.I-31

Integrate public health concerns into land use planning and decision making.

General Plan, Public Health and Safety Element
Page: HS-61 Policy: HS.P-38

Increase access to healthy foods throughout the county.

General Plan, Public Health and Safety Element
Page: HS-61 Policy: HS.P-40

Encourage the provision of child care facilities, particularly near employment centers, community centers, and schools.

General Plan, Public Health and Safety Element
Page: HS-61 Policy: HS.P-42

Promote the establishment of farmer's markets using locally grown produce. Revise the County Zoning Ordinance to allow licensed farmer's markets in unincorporated locations and fruit stands in agricultural areas. Remove barriers to siting of farmer's markets.

General Plan, Public Health and Safety Element
Page: HS-61 Policy: HS.I-43

Provide an annual report to the Board of Supervisors recommending ways that the County may continue to integrate planning and public health.

General Plan, Public Health and Safety Element
Page: HS-62 Policy: HS.I-46

Continue implementing public health programs and services that decrease obesity rates and increase easy access to healthy foods, parks, and recreation opportunities.

General Plan, Public Health and Safety Element
Page: HS-62 Policy: HS.I-47

Partner with the cities, school districts, and civic organizations to facilitate joint-use of schools and other public areas for public services such as child care and recreation.

General Plan, Public Health and Safety Element
Page: HS-63 Policy: HS.I-50

Work with local community groups to initiate walking, cycling and recreation clubs, sports leagues, and educational speakers discussing issues in public health.

General Plan, Public Health and Safety Element
Page: HS-64 Policy: HS.I-52

Stockton has significant infill opportunities and has revitalized its waterfront area with parks and walkways along the water.

The City of Stockton's settlement agreement with the Sierra Club and California Attorney General's office provides an insight into the kinds of policies critical to achieving real reductions in greenhouse gas emissions. These include maintaining a leading edge green building ordinance, requiring densities of new development to be supportive of transit and ensuring new development does not undermine policies that support infill and downtown development. The City's Climate Action Plan when completed, will be worth reviewing.

The City shall also explore the possibility of requiring GHG-reducing retrofits on existing sources of GHG emissions as potential mitigation measures in CEQA processes.

Settlement Agreement
Page: 6 Policy: 4d

From time to time, but at least every five years, the City shall review its green building requirements for residential, municipal and commercial buildings, and update them to ensure that they achieve performance objectives consistent with those achieved by the top (best-performing) 25% of city green building measures in the state.

Settlement Agreement
Page: 6 Policy: 4e

5. Within 12 months of the Effective Date, the City staff shall submit for City Council adoption a transit program, based upon a transit gap study. The transit gap study shall include measures to support transit services and operations, including any ordinances or general plan amendments needed to implement the transit program. These measures shall include, but not be limited to, the measures set forth in paragraphs 5.b. through 5.d. In addition, the City shall consider for adoption as part of the transit program the policy and implementation measures regarding the development of Bus Rapid Transit ("BRT") that are attached to this Agreement in Exhibit B.

a. The transit gap study, which may be coordinated with studies conducted by local and regional transportation agencies, shall analyze, among other things, strategies for increasing transit usage in the City, and shall identify funding sources for BRT and other transit, in order to reduce per capita VMT throughout the City. The study shall be commenced within 120 days of the Effective Date.
b. Any housing or other development projects that are (1) subject to a specific plan or master development plan, as those terms are defined in §§ 16-540 and 16-560 of the Stockton Municipal Code as of the Effective Date (hereafter "SP" or "MDP"), or (2) projects of statewide, regional, or area wide significance, as defined by the CEQA Guidelines (hereafter "projects of significance"), shall be configured, and shall include necessary street design standards, to allow the entire development to be internally accessible by vehicles, transit, bicycles, and pedestrians, and to allow access to adjacent neighborhoods and developments by all such modes of transportation.
c. Any housing or other development projects that are (1) subject to an SP or MDP, or (2) projects of significance, shall provide financial and/or other support for transit use. The imposition of fees shall be sufficient to cover the development's fair share of the transit system and to fairly contribute to the achievement of the overall VMT goals of the Climate Action Plan, in accordance with the transit gap study and the Mitigation Fee Act (Government Code section 66000, et seq.), and taking into account the location and type of development. Additional measures to support transit use may include dedication of land for transit corridors, dedication of land for transit stops, or fees to support commute service to distant employment centers the development is expected to serve, such as the East Bay. Nothing in this Agreement precludes the City and a landowner/applicant from entering in an agreement for additional funding for BRT.
d. Any housing or other development projects that are (1) subject to an SP or MDP or (2) projects of significance, must be of sufficient density overall to support the feasible operation of transit, such density to be determined by the City in consultation with San Joaquin Regional Transit District officials.
   Settlement Agreement
   Page: 6-7 Policy: 5 (a-d)

6. To ensure that the City's development does not undermine the policies that support infill and downtown development, within 12 months of the Effective Date, the City staff shall submit for City Council adoption policies or programs in its General Plan that:
a. Require at least 4400 units of Stockton's new housing growth to be located in Greater Downtown Stockton (defined as land generally bordered by Harding Way, Charter Way (MLK), Pershing Avenue, and Wilson Way), with the goal of approving 3,000 of these units by 2020.
b. Require at least an additional 14,000 of Stockton's new housing units to be located within the City limits as they exist on the Effective Date ("existing City limits").
c. Provide incentives to promote infill development in Greater Downtown Stockton, including but not limited to the following for proposed infill developments: reduced impact fees, including any fees referenced in paragraph 7 below; lower permit fees; less restrictive height limits; less restrictive setback requirements; less restrictive parking requirements; subsidies; and a streamlined permitting process.
d. Provide incentives for infill development within the existing City limits but outside Greater Downtown Stockton and excluding projects of significance. These incentives may be less aggressive than those referenced in paragraph 6.c., above.
   Settlement Agreement
   Page: 7 Policy: 6 (a-d)

7. Within 12 months of the Effective Date, the City staff shall submit for City Council adoption amendments to the General Plan to ensure that development at the City's outskirts, particularly residential, village or mixed use development, does not grow in a manner that is out of balance with development of infill. These proposed amendments shall include, but not be limited to, measures limiting the granting of entitlements for development projects outside the existing City limits and which are (1) subject to an SP or MDP, or (2) projects of significance, until certain criteria are met.

These criteria shall include, at a minimum:

a. Minimum levels of transportation efficiency, transit availability (including BRT) and Level of Service, as defined by the San Joaquin Council of Government regulations, City service capacity, water availability, and other urban services performance measures;
b. Firm, effective milestones that will assure that specified levels of infill development, jobs-housing balance goals, and GHG and VMT reduction goals, once established, are met before new entitlements can be granted;
c. Impact fees on new development, or alternative financing mechanisms identified in a project's Fiscal Impact Analysis and/or Public Facilities Financing Plan, that will ensure that the levels and milestones referenced in paragraphs 7.a. and 7.b., above, are met. Any such fees:
    1. shall be structured, in accordance with controlling law, to ensure that all development outside the infill areas within existing City limits is revenue neutral to the City (which may necessitate higher fees for development outside this area, depending upon the costs of extending infrastructure);
    2. may be in addition to mitigation measures required under CEQA;
    3. shall be based upon a Fiscal Impact Analysis and a Public Facilities Financing Plan.
d. The City shall explore the feasibility of enhancing the financial viability of infill development in Greater Downtown Stockton, through the use of such mechanisms as an infill mitigation bank.

Settlement Agreement
Page: 7-8 Policy: 7 (a-d)

City of Ventura

Ventura has implemented some significant parking measures that reduce the need to hop in your vehicle in between stops—it is called "Park Once."

Parking management is now understood to be a key means of reducing congestion and auto use while improving air quality. The City of Ventura's General Plan includes leading edge parking policies and strategies as well as other means to reduce traditional auto dependence such as shared vehicle pods and car-sharing.

Adopt a "Park Once" strategy for the Downtown Specific Plan area by (a) operating as many parking spaces as possible in a common pool of shared, publicly available spaces and (b) encouraging existing private commercial

parking to be shared among different land uses and available to the public when not serving private commercial use.

Parking Management Plan
Page: 2-4 Recommendation: 1

Prohibit or discourage private parking in new development (except for residential spaces). Instead, make public parking lots available to downtown shoppers and employees, and (when more exclusive parking arrangements are necessary) lease spaces in nearby public lots and garages to private businesses, for the particular hours and days of the week when the reserved parking is actually required.

Parking Management Plan
Page: 2-4 Recommendation: 1, Implementation Strategy #1

Purchase or lease existing private parking lots from willing sellers, and add this parking to the shared public supply.

Parking Management Plan
Page: 2-4 Recommendation: 1, Implementation Strategy #2

Facilitate shared and/or valet parking in existing private parking lots wherever feasible:
a. Allow parking provided in all downtown development to be off-site by right within ¼ mile of project site (about 6 blocks, a comfortable walking distance for most people).
b. If commercial developments are allowed to provide parking on-site, require as a condition of approval that any such parking be made available to public when not in use by owner/occupant.

Parking Management Plan
Page: 2-4 Recommendation: 1, Implementation Strategy #3

Install multi-space, pay-by-space parking meters in the core commercial area of downtown. Set parking prices at rates that create a 15% vacancy rate on each block, and eliminate time limits. Dedicate parking revenues to public improvements and public services that benefit the Downtown Specific Plan area. Create a “Parking Benefit District” to implement these recommendations.

Parking Management Plan
Page: 2-8 Recommendation: 2

Invest meter revenues in a full spectrum of transportation demand management strategies for downtown employees and residents, including transit, carpool, vanpool, bicycle and pedestrian programs.

Parking Management Plan
Page: 2-24 Recommendation: 3

Use Parking Benefit District revenues to provide free transit passes to all downtown employees and the existing residents. For all new multifamily residential developments, require that universal transit passes be provided to residents under a residential transit pass program.

Parking Management Plan
Page: 2-27 Recommendation: 4

Require all new and existing employers that provide subsidized employee parking to offer their employees the option to “cash out” their parking subsidy.

Parking Management Plan
Page: 2-31 Recommendation: 5

At the same time that parking meters are implemented for curb parking in the downtown core, implement Residential Parking Benefit Districts in adjacent residential areas. Residential Parking Benefit Districts are similar to residential parking permit districts, but allow a limited number of commuters to pay to use surplus on-street

parking spaces in residential areas, and return the resulting revenues to the neighborhood to fund public improvements.

Parking Management Plan
Page: 2-34 Recommendation: 6

Require all new residential development to “unbundle” the full cost of parking from the cost of the housing itself, by creating a separate parking charge.

Parking Management Plan
Page: 2-37 Recommendation: 7

The City of Ventura should encourage the establishment of a car sharing service in Ventura with one or more shared vehicle “pods” strategically located in the Downtown Specific Plan area.

Parking Management Plan
Page: 2-37 Recommendation: 8

Replace some existing city-owned fleet vehicles with car sharing cars.

Parking Management Plan
Page: 2-40 Recommendation: 8, Implementation Strategy #1

Partially or fully subsidize operation costs for a specified term.

Parking Management Plan
Page: 2-40 Recommendation: 8, Implementation Strategy #2

Require developers pay into a car-share start-up fund.

Parking Management Plan
Page: 2-40 Recommendation: 8, Implementation Strategy #3

Provide other incentives as appropriate, such as:
a. Offering convenient and visible spaces in downtown parking facilities to car sharing providers for locating car sharing “pods.”
b. Requiring developers of large downtown projects to offer car sharing operators the right of first refusal for a limited number of parking spaces
c. Offering city employees discounted annual car sharing memberships.

Parking Management Plan
Page: 2-40 Recommendation: 8, Implementation Strategy #4

Reform minimum parking requirements, in two steps.
(a) Reduce minimum parking requirements in the Downtown Specific Plan area to levels that reflect typical actual demand for a successful mixed-use downtown.
(b) After market-rate pricing has been instituted for downtown’s on-street parking, and residential parking benefit districts established to protect neighborhoods from unwanted spill over parking, remove all minimum parking requirements in the Downtown Specific Plan area.

Parking Management Plan
Page: 2-42 Recommendation: 9

Ventura should:
1) Identify one or more placeholder sites for locating new garages when needed.
2) Prioritize and aggressively implement all feasible strategies for reducing parking demand that are more cost-effective than increasing parking supply.
3) Monitor the effectiveness of strategies to reduce parking demand and initiate predevelopment process for new parking garage when downtown peak parking occupancy regularly and consistently exceeds 80%.

Parking Management Plan
Page: 2-55 Recommendation: 11

Yolo County has a significant agricultural base and has a Natural Heritage Program that covers over 650,000 acres.

Yolo County's recently adopted General Plan is remarkable in its breadth of goals, policies and progress indicators directed both at reducing greenhouse gas emissions and improving the County's livability and prosperity. It is a detailed and prescriptive plan that sets the bar high for new development and well as targets for retrofitting existing development. Every general plan should strive as high and include progress indicators similar to Yolo County's General Plan.

Create a program to allow developers to restore riparian forest in locations consistent with or that complement the Yolo Natural Heritage Program to offset all or a portion of the development's expected emissions.

Progress Indicators

- 1,100 acres of riparian forest restored by 2020. 2,000 acres restored by 2030.
- 50 miles of new hedgerow established by 2020 and 100 miles established by 2030.

Climate Action Plan
Page: 36, Action Item: A Measure A-6 Sequester Carbon in Agricultural Landscapes

Create a program to allow developers to pay fees that would assist the Resource Conservation District (RCD) to implement its hedgerow program and would be used to offset all or a portion of the development's expected emissions.

Climate Action Plan
Page: 36, Action Item: B Measure A-6 Sequester Carbon in Agricultural Landscapes

Work with the University of California – Davis and Yolo County cities to identify areas that will be affected by sea-level rise and institute protection and adaptation measures.

Climate Action Plan, Adaptation Section
Page: 92, Action Item: C Measure AD-3 Respond to the Potential Threat of Sea Level Rise

Strategies and Measures - Adaptation

As a part of the biennial report to the Board of Supervisors regarding implementation of the CAP, provide an update on climate change adaptation science, policy, and legislation at the state, regional, and local level to guide future revisions.

Progress Indicators

- Maintain a summary of current state-of-the-art climate adaptation science, policy, and legislation at the state, regional, and local level, to be updated biennially for the CAP update report to the Board of Supervisors.

Climate Action Plan, Adaptation Section

Page: 96, Action Item: A Measure AD-5 Develop Governance Strategies to Ensure That Yolo County Remains Resilient to Climate Change

Amend the Yolo County Code to require that all residential and non-residential remodels/additions for homes, where the construction value exceeds 50% of the home/building value, improve overall energy efficiency by 15%.

Progress Indicators

- 50% of consumers purchase "light green" portfolio comprised of 50% renewable sources; 25% of consumers purchase "deep green" portfolio comprised of 100% renewable sources; 25% of consumers stay with PG&E portfolio. (Target Year: 2020)
- 10% of non-residential buildings complete an energy efficiency retrofit, with an average energy efficiency improvement of 20%. (Target Year: 2020)
- 70% of residential units complete an energy efficiency retrofit, with an average energy efficiency improvement of 15%. (Target Year: 2030)
- 30% of non-residential buildings complete an energy efficiency retrofit, with an average energy efficiency improvement of 20%. (Target Year: 2030)

Climate Action Plan, Energy

Page: 58, Action Item: C Measure E-2 Reduce Energy Consumption in Residential and Non-Residential Units

Amend the Yolo County Code to require that all new residential construction exceed the California Energy Code 2008 Energy Efficiency standards (Title 24) by 15% (consistent with CalGreen Tier 1 standards).

Progress Indicators

- 97.5% of new buildings (residential over 3,500 square feet of livable space and non-residential) achieve Tier 1 energy performance. (Target Year: 2020)
- 86% of new buildings (residential over 3,500 square feet of livable space and non-residential) achieve Tier 1 energy performance. (Target Year: 2030)

Climate Action Plan, Energy Section

Page: 60, Action Item: A Measure E-3 Reduce Energy Consumption in NEW Residential and Non-Residential Units

Amend the Yolo County Code to require that all new homes with over 3,500 square feet of livable space exceed the California Energy Code 2008 Energy Efficiency standards (Title 24) by 30% (consistent with CalGreen Tier 2 standards).

Progress Indicators

- 2% of new buildings (residential and non-residential) achieve exemplary performance (Tier 2) and 0.5% of new buildings achieve zero-net energy demand. (Target Year: 2020)

Climate Action Plan, Energy Section

Page: 60, Action Item: B Measure E-3 Reduce Energy Consumption in NEW Residential and Non-Residential Units

Create a program to allow commercial builders who exceed the California Energy Code Energy Efficiency standards (Title 24) by 30% (consistent with CalGreen Tier 2 standards) or more to sell credit for emission reductions or energy savings exceeding 15% to other developers within Yolo County.

Progress Indicators

- 12% of new buildings (residential and non-residential) achieve exemplary performance (Tier 2) and 2% of new buildings achieve zero-net energy demand. (Target Year: 2030)

Climate Action Plan, Energy Section

Page: 60, Action Item: D Measure E-3 Reduce Energy Consumption in NEW Residential and Non-Residential Units

Develop an outreach program to promote the Energy Upgrade California program for residential property owners.

Progress Indicators

- Complete County Code amendments. (Target Year: 2012)

Climate Action Plan, Energy Section

Page: 62, Action Item: A Measure E-4 Increase On-Site Renewable Energy Generation to Reduce Demand for Grid Energy

Develop an outreach program to promote financial incentives available through CSI for installing solar hot water systems.

Progress Indicators

- 90% of new and 5% of existing residential units and 100% of new commercial buildings and 200,000 sq ft of existing commercial rooftops install solar PV. (Target Year: 2020)

Climate Action Plan, Energy Section

Page: 62, Action Item: C Measure E-4 Increase On-Site Renewable Energy Generation to Reduce Demand for Grid Energy

Amend the County Code to require all new residential and commercial development to install solar hot water systems.

Progress Indicators

- 90% of new and 15% of existing residential units and 100% of new and 5% of existing commercial buildings install solar hot water heaters. (Target Year: 2020)
- 100% of new and 40% of existing residential units and 100% of new and 10% of existing commercial buildings install solar hot water heaters. (Target Year: 2030)

Climate Action Plan, Energy Section

Page: 62, Action Item: D Measure E-4 Increase On-Site Renewable Energy Generation to Reduce Demand for Grid Energy

Amend the County Code to require all new residential development of four units or more and non-residential development to install solar photovoltaic systems capable of providing 10% or more of the development's total projected electricity consumption

Progress Indicators

- 100% of new and 10% of existing residential units and 100% of new commercial buildings and 300,000 sq ft of existing commercial rooftop install solar PV. (Target Year: 2030)

Climate Action Plan, Energy Section

Page: 62, Action Item: E Measure E-4 Increase On-Site Renewable Energy Generation to Reduce Demand for Grid Energy

Amend the County Code to require that residences built prior to 1994 be retrofitted with water efficient fixtures prior to resale.

Progress Indicators

- 100% of residential units built prior to 1994 improve fixture and fixture fitting water efficiency by 15%. (Target Year: 2020)

Climate Action Plan, Energy Section

Page: 64, Action Item: A Measure E-6 Reduce Water Consumption in Existing Buildings Through Increased Plumbing Fixture Efficiency

Develop a program in coordination with Yolo County water districts to promote voluntary water efficiency retrofits for existing buildings through technical assistance, free water efficiency audits and rebate incentives.

Progress Indicators

- 40% of existing residential units and commercial buildings reduce water consumption by 6% through water leak repair. (Target Year: 2020)
- 100% of residential units built prior to 1994 improve fixture and fixture fitting water efficiency by 20%. (Target Year: 2030)

Climate Action Plan, Energy Section

Page: 64, Action Item: B Measure E-6 Reduce Water Consumption in Existing Buildings Through Increased Plumbing Fixture Efficiency

Pursuant to the 2011 International Building Code, require that all automatic irrigation systems controllers be weather-based.

Progress Indicators

- Complete County Code amendments. (Target Year: 2012)
- 2% of residential (single-family and multi-family) units reduce landscape water consumption by 20%. (Target Year: 2020)
- 5% of commercial buildings reduce landscape water consumption by 20%. (Target Year: 2020)

Climate Action Plan, Energy Section

Page: 66, Action Item: A Measure E-7 Promote Weather Based Irrigation Systems and Water Efficient Turf Management

Amend the County Code to limit turf to no more than 25% of the front yard area in new residential development.

Progress Indicators

- 25% of residential (single-family and multi-family) units reduce landscape water consumption by 20% (Target Year: 2030)
- 50% of commercial buildings reduce landscape water consumption by 20%. (Target Year: 2030)

Climate Action Plan, Energy Section

Page: 66, Action Item: B Measure E-7 Promote Weather Based Irrigation Systems and Water Efficient Turf Management

Y. Incorporate low-water use appliances, drought tolerant landscaping and other water efficient features.

Draft General Plan, Sustainable Communities Policy

Page: LU-36 Policy: CC-2.16 Y

Z. Provide convenient and secure bicycle parking in downtown areas.

Draft General Plan, Sustainable Communities Policy

Page: LU-36 Policy: CC-2.16 Z

AA. To the greatest possible extent, avoid cul-de-sacs that create barriers for pedestrian and bicycle access to adjacent areas.

Draft General Plan, Sustainable Communities Policy

Page: LU-36 Policy: CC-2.16 AA

BB. Include recharging stations, preferred parking, and other incentives for alternative energy vehicles.

Draft General Plan, Sustainable Communities Policy
Page: LU-36 Policy: CC-2.16 BB

CC. Limit the amount of turf in yards for new residential developments to a maximum of 25 percent of the yard area.

Draft General Plan, Sustainable Communities Policy
Page: LU-36 Policy: CC-2.16 CC

DD. Require the installation of low output sprinklers, such as drip, soaker hoses, and microspray in new residential development whenever possible.

Draft General Plan, Sustainable Communities Policy
Page: LU-36 Policy: CC-2.16 DD

FF. Demonstrate adherence to LEED Neighborhood Design Standards or the equivalent, for new development, including Specific Plans.

Draft General Plan, Sustainable Communities Policy
Page: LU-36 Policy: CC-2.16 FF

Strive to achieve a minimum jobs/housing balance of 1.2 jobs for every dwelling unit on average within each unincorporated community.

General Plan, Land Use and Community Character Element
Page: LU-27 Policy: CC-2.10

Strive to achieve a match between the prices of dwelling units and the salaries of the jobs provided within each unincorporated community

General Plan, Land Use and Community Character Element
Page: LU-27 Policy: CC-2.11

The Ahwahnee Principles were developed at a conference held in Yosemite in 1991 focusing on resource-efficient communities.

Require the installation of dual plumbing.

Water Recycling and Reuse Handout

It is the policy of [name of jurisdiction] that recycled water determined to be available pursuant to Section 13550 of the Water Code shall be used for nonpotable uses within the designated Recycled Water Use Areas (established by each local jurisdiction). Recycled water shall be used wherever there is not an alternative higher or better use for the recycled water, its use is economically justified, financially and technically feasible, and consistent with legal requirements and the preservation of public health, safety and welfare, and the environment.

Water Recycling and Reuse Handout

Dual plumbing that allows graywater from showers, sinks, and washer to be reused for landscape irrigation should be included in the infrastructure of new development.

Water Recycling and Reuse Handout

Ahwahnee Water Principle #3

Community design should maximize the use of recycled water for appropriate applications including outdoor irrigation, toilet flushing, and commercial and industrial processes. Purple pipe should be installed in all new construction and remodeled buildings in anticipation of the future availability of recycled water.

Water Recycling and Reuse Handout

Ahwahnee Water Principle #4

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