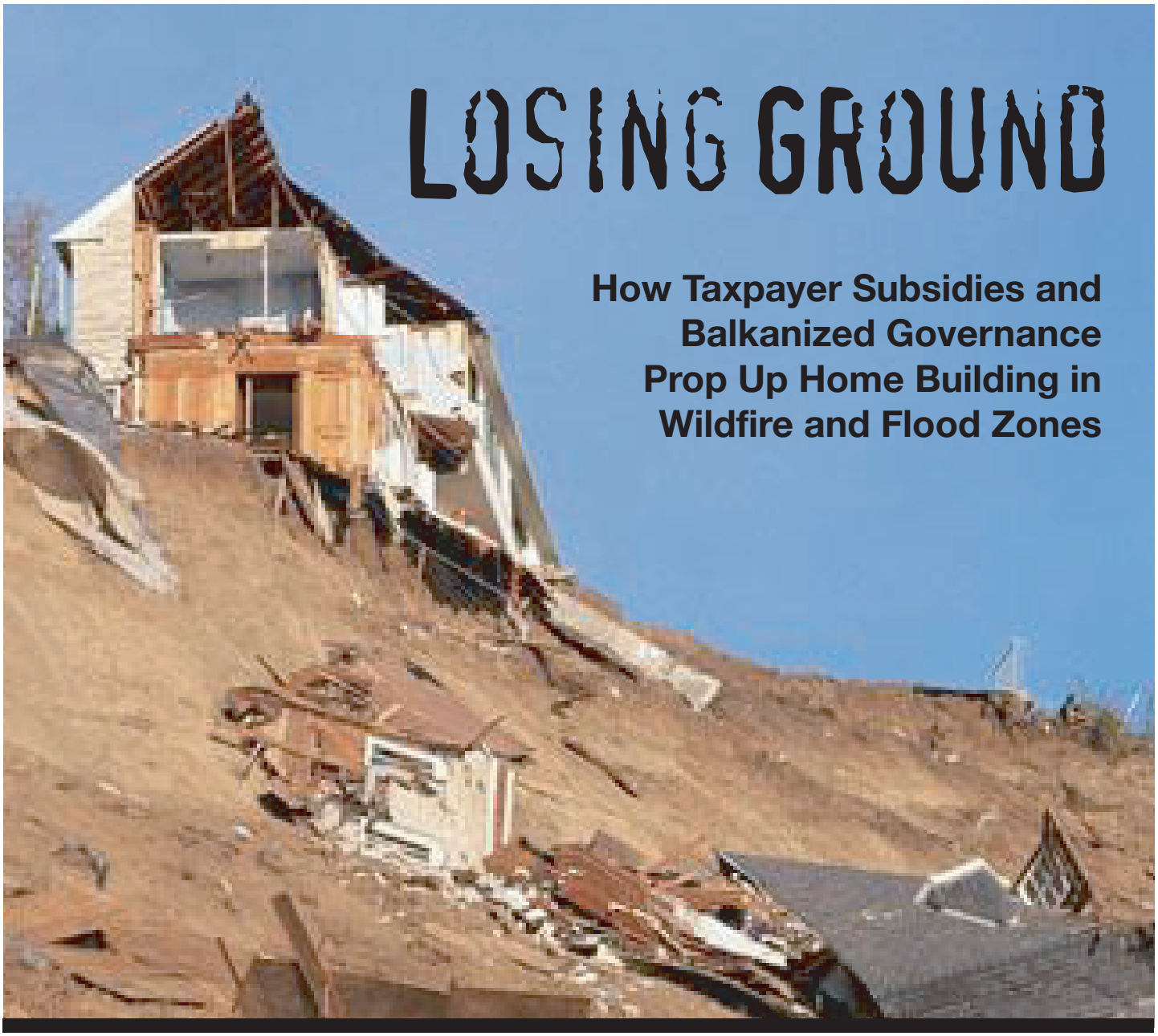


LOSING GROUND

How Taxpayer Subsidies and Balkanized Governance Prop Up Home Building in Wildfire and Flood Zones

Center for Governmental Studies
Solutions for Democracy

Emmett Berg
Bill Boyarsky

LOSING GROUND:

How Taxpayer Subsidies and Balkanized Governance Prop Up Homebuilding in Wildfire and Flood Zones

EMMETT BERG, Project Director
and BILL BOYARSKY, Senior Consultant

with LARA HOFFMAN,
AMBER HEALY
and JENNIFER LOZANO

Center for Governmental Studies
10951 W. Pico Blvd., Suite 120 Los Angeles, California 90064
310.470.6590 F 310.475.3752
www.cgs.org center@cgs.org

2004

Center for Governmental Studies

Solutions for Democracy

Board of Directors

The Center for Governmental Studies (CGS), founded in 1983, creates innovative political and media solutions to help individuals participate more effectively in their communities and governments.

CGS uses research, advocacy, information technology and education to improve the fairness of governmental policies and processes, empower the underserved to participate more effectively in their communities, improve communication between voters and candidates for office, and help implement effective public policy reforms.

ABOUT CGS

The Center for Governmental Studies (CGS) is a nonprofit, nonpartisan Los Angeles-based organization. Established in 1983, CGS is known for its studies on governance reform, including campaign finance, ballot initiatives and judicial elections. Its efforts in writing new laws include Los Angeles' public financing and ethics ordinances and creation of the city's ethics commission. CGS organized three statewide blue ribbon commissions, the California Commission on Campaign Financing, the California Citizens Budget Commission and the California Citizens Commission on Higher Education. CGS created the California Channel, the statewide public affairs television network, and the Democracy Network, a national online system of voter information. CGS operates Connect LA, an online resource center providing low income communities with information about employment, health, childcare, housing and government services.

ACKNOWLEDGEMENTS

Responsibility for the findings and recommendations in this report rests with the authors, but credit is due in no small part to public agency personnel and private individuals to whom we turned again and again for guidance and support. CGS issued numerous Public Records Act requests and found agencies generally open and willing to provide documents. When documents could not be located, retired and former officials stepped into the breach to provide valuable insight and institutional knowledge.

CGS also acknowledges the valuable contributions made by three interns on the Foothills Project. Lara Hoffman researched and helped prepare capsule reports on 14 communities. Amber Healy contributed research to Chapter One, Alluvial Amnesia, and unearthed the legislative history of the California F.A.I.R. Plan Association, a quasi-public insurance authority. Jennifer Lozano collected supporting data.

In addition, we recognize Tracy Westen, CGS Chief Executive Officer, and Bob Stern, CGS President, for their editing, advice and project oversight.

Finally, CGS staff contributed much appreciated time and energy, including Rebecca Schwaner, graphics, layout and design; Paul Ryan, election law counsel; Raymond Uyemura and Miesha Watson, technical; and Janice Roberts and Saidiah Johnson, administrative.

CGS' work is largely financed by grants from foundations. This project has been generously supported by a grant from The James Irvine Foundation of San Francisco. The opinions expressed in this report are those of the authors and do not necessarily reflect the views of The James Irvine Foundation. The James Irvine Foundation is an independent grantmaking foundation dedicated to enhancing the social, economic and physical quality of life throughout California, and to enriching the State's intellectual and cultural environment. The Foundation was established in 1937 by James Irvine, the California pioneer whose 110,000-acre ranch in Southern California was among the largest privately owned land holdings in the State. With assets of $1.5 billion, the Foundation makes grants of approximately $66 million annually for the people of California. For more information, please visit www.irvine.org.

Additional funding was provided by the David Schwartz Foundation of New York City.

Table of Contents

Chapter I: Floods

Chapter II: Wild Fires

Chapter III: Insurance

Chapter IV: Governance

Appendix

INTRODUCTION

Since the late 1800s, when settlement of the Los Angeles area began in earnest, the San Gabriel Mountains have formed an imposing northern obstacle to urban and suburban growth. Occasionally snowcapped but more often hidden by smog, the mountains rise in several places more than a vertical mile above the Los Angeles basin, cloud-ripping and wind-channeling topography that can transform annual rain and windstorms into destructive floods and wildfires.

While most development is restricted in the barren San Gabriel mountain highlands, especially inside the 697,000-acre Angeles National Forest, the more lush, chaparral-covered foothill slopes of the San Gabriels now support thousands of homes, many of them in gated residential developments.

The Foothills, as they are known, have long been wilderness havens for urban dwellers, within a comparatively short driving distance to job centers such as downtown Los Angeles. The Foothill communities, all 14 of which CGS surveyed for this report,[1] have distinct histories but in large part trace their founding to the breakup of Spanish colonial land grants following California statehood in 1850.

Fig. 1. Location of San Gabriel Mountains.

Communities began to form as early as 1885, when the Atchison, Topeka & Santa Fe Railroad started service to Los Angeles, thus entering into competition with the Southern Pacific Railroad, which had tracks extending northward to Oakland. A fare war, population influx and speculative land boom commenced.[2]

[1] La Canada Flintridge, Altadena, Arcadia, Sierra Madre, Monrovia, Duarte, Bradbury, Azusa, Glendora, San Dimas, La Verne, Claremont, Upland and Rancho Cucamonga.
[2] Reisner, Marc. A Dangerous Place: California's Unsettling Fate, Pantheon: New York, 2003. p. 24.

> A man named Monroe founded Monrovia. He did it by purchasing a few acres and building himself a house, which he called a town. The land was barren. Above it was the mile-and-a-half-high, nearly vertical wall of the San Gabriel Range, some of the youngest mountains on earth, which sent down floods, mud, gravel, trees, thousand-ton boulders, and uphill homes during torrential winter storms. Monrovia lots measuring fifty by one hundred fifty feet sold out [at] a hundred dollars a [parcel]. Another man bought a piece of outlying nowhere, named it after Glendora, his wife, and in one day sold off three hundred lots.[3]

The rush to buy land foreshadowed the contemporary crunch for housing. By the spring of 1888, however, the region's first big bubble burst.

> The banks that had sustained [the boom], often with usurious five-day notes, caught a chill and stopped lending money for any transaction outside the heart of [Los Angeles proper]….Some laid-out towns never materialized; others—Monrovia and Glendora—were repopulated by coyotes and jackrabbits. Orchards that had fallen into the hands of waitresses and policemen and clerks went to ruin. By the end of 1888, the assessed valuation of Los Angeles County dropped to $20 million from an earlier assessment of $63 million.[4]

Despite the turnabout, growth returned in ever-greater exponents. Financiers provided the cash, and the lack of flood control systems or organized fire protection did not stop the constant flow of speculators, settlers and farmers. In the mostly uninhabitable hills above, Congress set aside land in 1892 for a timber reserve which would in 1903 become the Angeles National Forest.[5]

The early days were a matter of holding on against the elements. Nine of the 12 Los Angeles County cities[6] sited along the base of the San Gabriel Mountains were incorporated prior to the formation of the Los Angeles County Flood Control District in 1915 and decades before imported water arrived from the Owens Valley and Colorado River. The nine cities also predated Los Angeles County's creation in 1911 of a Board of Forestry, one of the forerunners to the county Fire Department.

The rapid settlement of the foothills, initiated before the era of the motorcar, was aided by the Pacific Electric "red cars" and the Santa Fe railway, which connected the newer cities to each other and across miles of open land to Los Angeles. While Southern California tract homes and strip malls have been maligned for their sameness, the environs of early Los Angeles also were not much to look at:

> Since the countryside had a paucity of native trees and other greenery, the vista was often not the most pleasing of scenes to the eyes of incoming tourists [or] local

[3] Id. at 27.
[4] Id. at 29.
[5] The Angeles National Forest, a title signifying a larger purpose for public forested lands than timber extraction alone, was created from the federal San Gabriel Timber Reserve first set aside by President Benjamin Harrison in 1892.
[6] Monrovia, 1887; Pasadena, 1896; Azusa, 1898; Arcadia, 1903; La Verne, 1906; Glendale, 1906; Claremont, 1907; Sierra Madre, 1907; and Glendora, 1911.

> residents as they traveled from town to town. Grass and brush fires burned largely unchecked, often for days at a time, adding further to the barrenness of the summer and fall months. Then rainfall during the following winter would wash out the roads and bury the farms and ranches in mud and silt.[7]

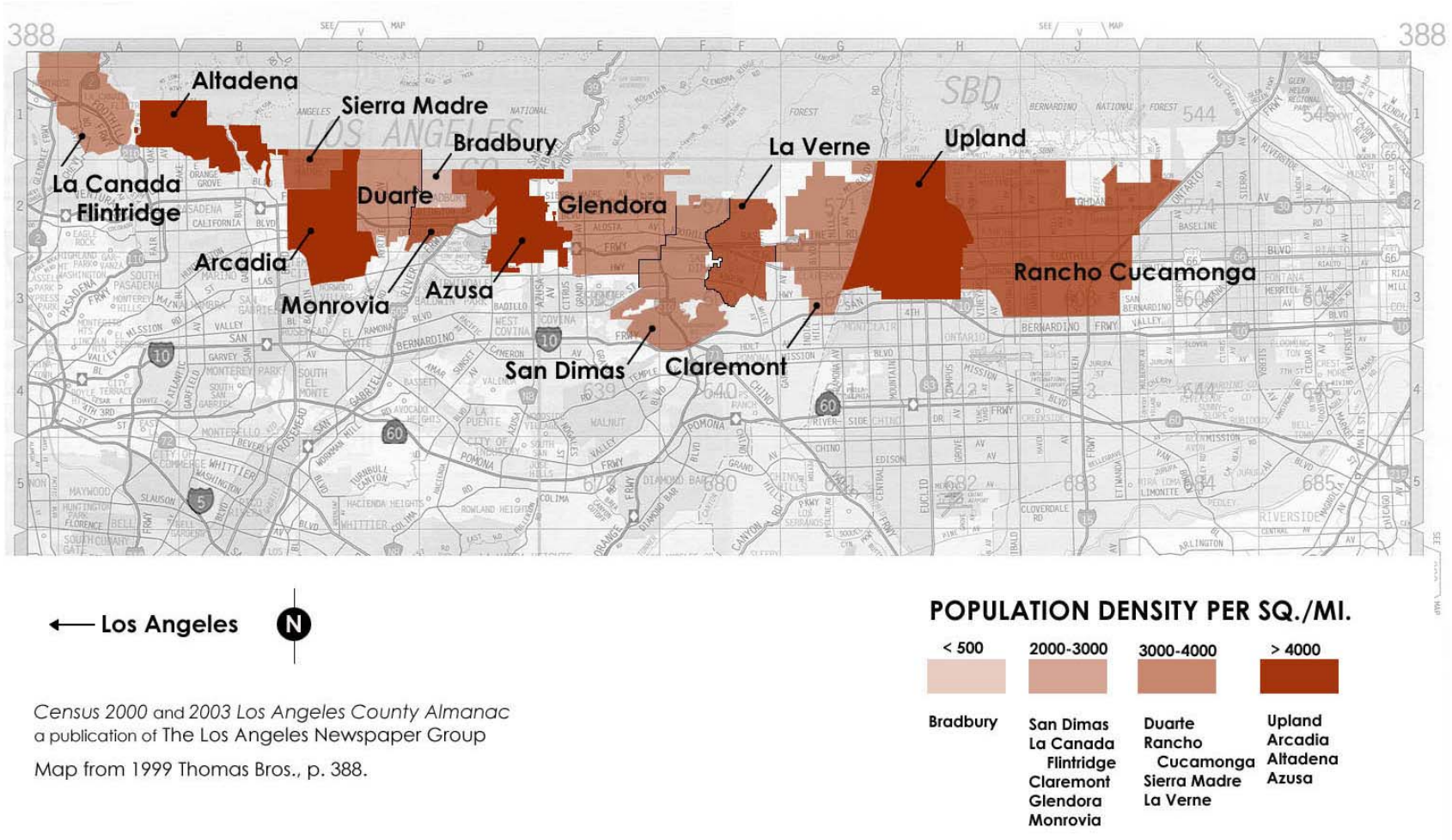
Communities grew as developers purchased and subdivided land, often without the infrastructure required for such building. This oversight proved deadly when cyclical disasters struck. Altadena, in the San Gabriel Mountain foothills adjacent to Pasadena, was hit by the devastating Kinneloa fire in 1993, which resulted in civilian and firefighter fatalities—and the loss of 155 homes. The Los Angeles County Fire Department's official report on the fire describes the impact:

> To fully understand human-enhanced factors that effected structure loss during [the Kinneloa Fire], we must go back in history to the 1920's. The areas involved were developed originally as weekend getaways for Los Angeles residents [and] consisted mainly of isolated cabins. As time has passed the areas have gradually evolved into year round residences, situated in a high fire hazard area, plagued with substandard roads and virtually nonexistent emergency access.[8]

In some places, fire trucks could not navigate narrow roads with overhanging canopies of burning vegetation, nor could they access water sources due to malfunctioning pumps. Officials implemented stricter fire codes in the aftermath of the Kinneloa and Old Topanga fires, not quite in time for many unprepared homeowners.

Today, according to the 2000 Census, approximately 567,709 people live in the San Gabriel Mountains foothills communities, including the unincorporated township of Altadena and the cities of La Canada Flintridge, Sierra Madre, Arcadia, Monrovia, Duarte, Bradbury, Azusa, Glendora, San Dimas, La Verne, Claremont, Upland and Rancho Cucamonga. See the map on the next page (Fig. 2).

[7] Boucher, David. Ride the Devil Wind, Fire Publications: Bellflower, CA. 1991, p. 3.
[8] County of Los Angeles Fire Department. *Official Report Kinneloa Incident.* p. 33.



Census 2000 and *2003 Los Angeles County Almanac*
a publication of The Los Angeles Newspaper Group

Map from 1999 Thomas Bros., p. 388.

Fig. 2. Population density per square mile.

These communities are located within a 689 square-mile watershed. The watershed drains into the San Gabriel River, flows southward to Long Beach, and into the Pacific.

The San Gabriel Mountains present natural challenges to developers and governments alike. This report proposes reopening the debate on public policies that have placed homes in harm's way, often with the financial backing of taxpayer subsidies that siphon tax money away from strained public coffers

Although such a policy debate is necessary, it is often difficult to focus attention on the key issues. When fires and floods kill people and destroy residential areas, the disasters bring out heavy television news broadcasts and print media coverage. But once the danger has past, the media, always in search of something new, shows little interest in examining systemic or policy-based causes. Those involved in dry and fire-free year discussions of potential danger are treated like Henny Penny, warning that the sky is falling. But the fires of 2003, along with many unexpected calamities before them, show the need for an understanding of the causes of fire and flood and the need to minimize their destruction.

Homebuilding not only fulfills some of the California dream but is an important force in driving the state's economic growth. Government must support homebuilding rather than restrict it. Yet government has a basic responsibility to protect its residents and its environment. Inevitably, this produces conflict, which must be settled in the political arena, a process that has failed so far.

The issues examined in this report resonate with issues in other high growth areas in California. Portions of two other California mountain ranges, the coastal ranges and the Sierra Nevada, whose foothills also border growing suburban areas, share the San Gabriels' nearness to urban centers. Hillside homebuilding continues up and down the state, but it is rarely examined as a phenomenon unto itself. That is the function of this report.

EXECUTIVE SUMMARY

Twenty-two died in the October 2003 Southern California wildfires, and more than a dozen also were killed tragically in flash floods on Christmas day. Striking again, the deadly cycle of fire and flood offered a tragic reminder that living in and around the mountain ranges and foothills add beauty but also an element of danger to life in Southern California. Development in dangerous areas was responsible for much of the devastation.

Losing Ground uncovers the political history, legislation, bureaucracy and financing actions that over time have reconfigured public laws and resources to protect and serve the interests of the relatively few homeowners choosing to live on lands where fires and floods can be slowed but never stopped.

The four main chapters of this report include surveys of three major public services (flood control, fire protection and insurance joint-underwriting authority) which influence and allow settlement of lands prone to fire and floods. The final chapter explores land use and governance topics (including a case study of the City of Glendora) drawing from information collected on individual cities and unincorporated communities situated along the base of the San Gabriel Mountains.

Losing Ground also proposes a series of recommendations for action. Its goal is not to stop development but to enhance safety controls and to identify and, if possible, reduce the public subsidies discussed in this report.

Flood Control: Locally Zoned, U.S. Taxpayer Owned

The first subsidy and development scenario for homebuilding on disaster-prone lands is described in Chapter I, *Alluvial Amnesia: How Officials Imperil Communities by Downplaying Flood Risks.* This chapter opens with a detailed reconstruction of the decisions, and non-decisions, that led to the construction of homes and a high school on a flood plain, protected by a flood control dam that qualified experts say is inadequate. The Deer Creek dam above Rancho Cucamonga, in western San Bernardino County, was designed and subsidized by the federal government through the efforts of local congressmen, including one who was appointed to be the top civilian official at the U.S. Army Corps of Engineers.

Alluvial Amnesia is more than a warning flag for one community. CGS's investigation of the Deer Creek dam reveals subsidy and decisional patterns highly relevant to land development policy in other California wildfire and flood zones—especially the new growth zones outside highly urbanized Los Angeles County.

Housing cannot easily exist in flood runoff areas. Without modern flood control methods, entire towns would be washed away. Creating stable societies in such hazardous areas requires dams and establishment of concrete riverbeds—costly investments for sparse-in-numbers country folk to fund on their own. Local voters can finance dams on their own

through assessments attached to property tax bills, but many voters have refused to authorize such additional taxes, especially where federal flood control projects exist. Deer Creek is one of these instances.[9]

Despite the home building boom below Deer Creek and in other parts of western San Bernardino County, and widespread flooding in 1983, local voters in 1982 and 1983 turned down measures to finance flood control facilities some felt were necessary. Voters may have felt that the federal dam and concrete channel system built in the 1970s to hold back Deer Creek's floodwaters was enough on its own.

History has a tendency to revise flood control systems, which are reliant on scientific estimates and limited in scope by economic indicators. The flood-proof dam of today can be overrun by a massive flood for which there is no precedent. A flood control system can fail to operate as expected, even in smaller floodwaters, such as above Glendora in January 1969. Science is evolving, and while it evolves, the sheer humanity stacked up behind dams grows with each new subdivision. To address these concerns, Los Angeles County officials are amid a decades-long initiative to upgrade, enlarge and modify their flood control facilities. But at Deer Creek, no one is really in charge, and so everyone will have to hope for the best.

Alluvial Amnesia unearths the extraordinary topography of the San Gabriel Mountains, the historical record behind the construction of Deer Creek and the controversy that ensued when one private citizen hired a flood expert for a second opinion.

Paying for Wildland Fire Control

The second major subsidy for homebuilding on wild and hazardous lands is described in Chapter II, *Smoldering Subsidies: How Wildfire Policies Worsen Losses.* This chapter reveals the statutory mechanisms under which the State of California and Los Angeles County have tapped taxpayers to pay for wildland fire defense, thereby encouraging homebuilding in fire-prone areas.

Laws originally drawn up to fund protection of forests are today being used to subsidize protection of homeowners on the wildland-urban interface.[10] These subsidies are not listed in the various budget books in a section called "subsidies." For example, nowhere in the Los Angeles County budget is found a clearly identifiable line entry for the $67 million a year allocated from the county general fund for brush fire fighting and suppression in hillside areas. Nor is this general fund allocation voted on each year when the Los Angeles County Board of Supervisors approves the budget. Nor must the fire department itemize its wildfire spending or return money to the general fund if it spends less than $67 million per year fighting wildfires.[11]

---

[9] One exception is Los Angeles County, where voters in 1915 voted to authorize formation of a countywide flood control district.

[10] If you live near forests, chaparral stands or other kinds of wild vegetation, you live on the urban-wildland interface.

[11] Moreover, the federal government repays millions to local governments when major wildfires strike; the Los Angeles County Fire Department in 2003 proposed and won approval to lower a special tax on residents inside its fire district, along the way noting that "unanticipated increases" in federal wildfire disaster reimbursement was one of the reasons for the tax

Another example of a subsidy is the use of California Department of Forestry fire fighters—originally assembled to protect timber stands from enemy attack in World War II—as suburban firefighters, battling house by house to save homes built in brush fire areas. A state fire plan implemented under duress during wartime has been twisted into a program to protect people and homes.

The system of counties providing fire service to cities—inaugurated by Los Angeles County in the 1950s—has also created inequalities. Many cities receive greater value in fire services (fire stations, equipment, personnel) than the taxes they pay for these services; others receive less. Newer communities that incorporated after Proposition 13 provide more in tax revenue than they receive in fire protection services, according to a study commissioned by the City of Claremont.

Finally, *Smoldering Subsidies* explores how government agencies have responded slowly in adapting to wildfire threats. Many thousands of homes have burnt down because of a preference for wooden shingle shake roofing. Modern improvements in building design, invented to lessen fire losses, have been opposed by developers as too costly. Brush clearance laws have been enacted without assessing the downstream adverse effects of denuding. And environmental regulations have slowed or prevented efforts to reduce fire fuels (brush, trees) near suburban communities, especially on state and federal lands.

Guaranteed Property Insurance in Fireprone Areas

Chapter III digs into the history of the California F.A.I.R. Plan Association. (F.A.I.R. stands for Fair Access to Insurance Resources.) The F.A.I.R. Plan is a joint underwriting authority designed to guarantee low-cost property insurance for homeowners in distressed areas identified by the Association and approved through the California Department of Insurance. The F.A.I.R. Plan exists because of redlining in poor communities, especially where riots have occurred, such as in Watts in 1965. Association membership is mandatory for any company offering property insurance in California.

In 1968, however, a state legislator set out to revise the F.A.I.R. Plan's eligibility criteria. Homes in the affluent community of Bel Air had recently burned in a wildfire, and homeowners were worried they would fail to find affordable insurance.
Bel Air Assemblyman Paul Priolo brokered changes to the F.A.I.R. Plan that conflated the risks faced by poorer urban areas with risks faced by more affluent people who can more easily choose where to live.

As the years went by, the F.A.I.R. Plan mutated even further. From 1968 to 1997, insurers could earn financial rewards for writing policies in areas prone to brush fires, but there were no such credits for the insurers who wrote policies in urban areas. (The head of a company with a business focusing on inner-city areas discovered the inequality. He brought his objections to State Senator Art Torres, and Torres won passage of a bill in 1994 correcting

---

Cat. Source: Letter of Los Angeles County Fire Chief P. Michael Freeman to the Los Angeles County Board of Supervisors, dated August 29, 2003.

the uneven credit policy. It took three years for the correction to be implemented by the Department of Insurance, however.)

Finally, former Insurance Commissioner Chuck Quackenbush even authorized the extension of eligibility for coverage to houseboats—a far cry from the program's original intent.

The F.A.I.R. Plan affects everyone in California who buys property insurance, since their carriers must belong to the F.A.I.R. Plan Association. Laws require F.A.I.R. Plan coverage to be affordable, but when wildfires strike, insurance claims flood in to the F.A.I.R. Plan. When its solvency is threatened due to the claims it is paying out, the F.A.I.R. Plan can assess all insurers in its association to make it solvent again—a financial liability the insurers pass on in higher premiums to policyholders. This is where subsidy is apparent.

Despite its ability to designate areas as inner-city or subject to brushfires—designations that carry both stigmas and economic ramifications—the F.A.I.R. Plan Association is protected by sections of state law that protect the Plan's financial records from public scrutiny. F.A.I.R. Plan administrators claim the secrecy is necessary to protect privacy, but the argument does not ring true. There is no stigmatism attached to insurance obtained through the F.A.I.R. Plan, such as might arise for a welfare recipient, for instance. (Celebrities such as basketball star Kareem Abdul-Jabbar have received policies through the F.A.I.R. Plan.) Someone who gets insurance through the F.A.I.R. Plan may actually be spending their neighbors' money through increased premiums levied on homeowners who pay full price.

Governance: Isolated Cities, Common Costs

Chapter IV explains how a multitude of city and county governments and special districts have been incapable of dealing with the widespread regional impact of foothill development. Storm water, air pollution, traffic and habitat loss affect entire regions, yet the institutions created to deal with these issues lack real power for coordinated enforcement. This chapter examines existing regional agencies and conservancies and the challenges they face, especially pertaining to the San Gabriel Mountains and its watershed.

This chapter includes a case study and campaign finance analysis of Glendora, which experienced a recall election in March 2002. Glendorans were told their recall would determine the future of their picturesque foothills. A closer look reveals that whatever personality conflicts were afoot, individual elected leaders who promise a conservationist approach or tough laws governing development could be rebuffed and recalled when they opposed market forces—such as the arrival of a Wal Mart down the street, or increased demand for pricey homes in the hills.

The chapter concludes with an appendix of development and zoning patterns gathered from 14 communities nestled below the San Gabriel Mountains: La Canada Flintridge, Altadena, Arcadia, Sierra Madre, Monrovia, Duarte, Bradbury, Azusa, Glendora, San Dimas, La Verne, Claremont, Upland and Rancho Cucamonga.

SUMMARY OF RECOMMENDATIONS

Flood Related

Reducing losses and abating flood dangers requires commitment of scientific expertise from the state government, greater accountability from local governments and increased participation by citizens.

- The governor should order his Office of Planning and Research to map and legally define the historic boundaries of all alluvial fans—mountain flood zones—in the state, beginning with fans nearest to urban or high-growth areas. These maps should chart the location of floods through recorded history and describe what flood control installations are in place to protect communities.

- State legislation should be passed to enable local formation of "alluvial districts," financed by an assessment on local property districts, with the authority to hold hearings on development encroaching upon alluvial fans. The districts should have a governing board comprised of appointees from state and local jurisdictions as well as at least one directly elected public representative.

- Alluvial districts should hold hearings on new development and include testimony and reports on the impact of potential flooding by county, city, state, school district and representatives of any other agency involved in the development. The proceedings of the hearings should be easily accessible to the public in the form of reports assessing flood risk and ways to mitigate the danger. Districts should be required to send these reports to property owners on alluvial fans.

- As an alternative to forming another layer of bureaucracy, the task of holding such hearings could be required of the local county board of supervisors. Guidelines in the legislation might prevent the supervisors from ignoring their responsibilities; for example, if an alluvial district's governing board failed to find that a new development was "reasonably safe for habitation" because of flood danger, the county board of supervisors would have to address the finding formally (usually called a mitigated negative declaration) to allow that development to proceed. These declarations should be reviewable in state court.

- State legislation should require school districts located fully or partially on alluvial fans to maintain locally available files on each new school construction project. This would allow members of the public to be aware of state agencies' assessment of flood threats without traveling to Sacramento to retrieve documents. This practice could be extended to all California school districts, as urban districts also face safety concerns related to new school construction.

- The Governor or the City of Rancho Cucamonga should request the National Academies of Science (NAS) to convene a definitive study on debris flows at Deer Creek and elsewhere in Southern California. If Rancho Cucamonga or the state provides $250,000 in seed money, the U.S. Army Corps of Engineers has already agreed to pay the balance of the cost for the NAS study, expected to be about $1 million. Los Osos High School cost $48 million, but its location may be exposed to a destructive flood. Los Osos students and the residents of Deer Creek deserve to know flood dangers if they truly exist.

Wildfire Related

State and local governments must come to grips with the new reality of widespread residential development in lands subject to repeated wildfires Reform should begin by revisiting laws already on the books.

- The Legislature should initiate a study of the role of the California Department of Forestry in firefighting in light of its increased activities in suburban instead of purely wildland areas.

- The study should examine the extent to which local homeowners and governments should pay for firefighting costs in the wildland-urban interface. Revising the department's role is a complex subject requiring consensus. The legislature, in tackling it, should form a select two house committee with representation from relevant committees and include legislators from affected areas. The committee should hold hearings in affected areas.

- Faster-growing counties should examine ways to encourage consolidation of small fire districts, as has been done in Los Angeles County. The runaway San Diego fire, battled by several undermanned fire departments, demonstrated the need for consolidation of resources and command.

- Property owners and developers in the urban-wildland interface should be required to shoulder more of the financial burdens of firefighting facilities in their area. This is a complex issue because suburban wildfires affect not only homes but recreational areas used by everyone.

- The Legislature should examine the possibility of establishing a hazard tax for high risk fire areas in State Responsibility Areas, which would replace the regressive parcel tax now under consideration by the California Department of Forestry and Fire Protection.

- The Legislature should devise criteria to determine the full costs of suburban-style development in wildfire-prone lands. Criteria could include fire history, insurance rating and density, among others. Local fire departments, the California Department of Forestry and the Federal Emergency Management Agency should also provide a

cost assessment of model development, creating a guide for jurisdictions as they decide land use questions. Given the wildfire history of a particular area, how much public resources might a new development require? Such information could appear in environmental impact reviews.

- The Los Angeles County Board of Supervisors should provide a true picture of its firefighting budget, breaking down the costs of forest and brush firefighting and urban firefighting. The supervisors should end the practice of diverting to the county fire department more than $60 million a year from the general fund, financed by all county taxpayers, without debate or a vote. The county fire department budget request should be put on the table, with budget requests from other departments, and debated, as is now the case with budgets from the sheriff's department, the district attorney and other county departments that are responsible for public safety.

Insurance Related

The state government should consider phasing out an insurance program that since 1968 has granted insurance coverage at below market cost to homeowners in affluent neighborhoods such as Bel Air and Malibu.

- The California Department of Insurance should disclose neighborhood locations of F.A.I.R. Plan-brokered policies and their general liability to determine the costs of providing insurance to homes in suburban fire risk areas.

- The California Department of Insurance should order a study on the environmental impact of the F.A.I.R. Plan's brush clearance policies.

Governance Related

The state government should provide creative incentives to local government to encourage responsible development and diminish inter-jurisdictional rivalries.

- A state constitutional amendment should be passed to authorize creation of regional districts, along the lines of those proposed by former Assembly Speaker Robert Hertzberg's regional study commission, that would allow local governments to combine into joint-power-authority districts with the power to sell bonds, ask voters for approval of tax increases and provide for regional planning of projects with region-wide impact, such a large housing tract or an auto mall. The power to raise local taxes and sell bonds would be a carrot to persuade local governments to take up the tough task of beginning to regulate development along regional lines. The district boundaries should be based on watersheds, whenever possible. Such districts would preserve local control while addressing the increasing regionalization of California problems.

- The Legislature should rejuvenate California Environmental Quality Act (CEQA) environmental impact reports by mandating provisions for economic impact reviews for new development tracts, even for as few as 10 homes. These reports are crucial to public consideration of development projects, but over the years the process has been, in effect, privatized. Reports are now financed by and prepared by developers through consultants. Local planning departments approve CEQA-mandated reports but rarely challenge developers' preparation of them. The process needs more public scrutiny by government regulators. Reports should address safety threats, such as the potential for fire and flood. They should examine regional implications of a project instead of dealing only with the impact within a city or even a neighborhood. CEQA should be amended to require the listing and location of a new development's impact on neighboring jurisdictions. Neighboring jurisdictions affected by such external impacts (e.g. water pollution, straining of fire resources) would be officially notified and given 60 days to issue comments with the local jurisdiction in which a new development is proposed.

Chapter I

ALLUVIAL AMNESIA:

HOW OFFICIALS IMPERIL COMMUNITIES BY DOWNPLAYING FLOOD RISKS

Mulholland and the St. Francis Dam Disaster

In 1928, William Mulholland, the famed Los Angeles Department of Water and Power engineer, testified in a coroner's inquest that he had inspected and pronounced safe a leaking dam the very day before its collapse triggered the worst human-caused disaster in California history. Mulholland was being questioned under oath by a district attorney seeking a scapegoat for the hundreds of deaths that resulted when St. Francis Dam gave way and sent 12 billion gallons of water surging down the Santa Clara Valley on March 12, 1928.

Mulholland argued in his own defense that the visible leaks were inconsequential. He was technically correct but at the same time dissembling. New dams do leak clear water, but not the "brown" water that reveals, as it did at St. Francis, that rushing water was eating away at the foundation of the dam.

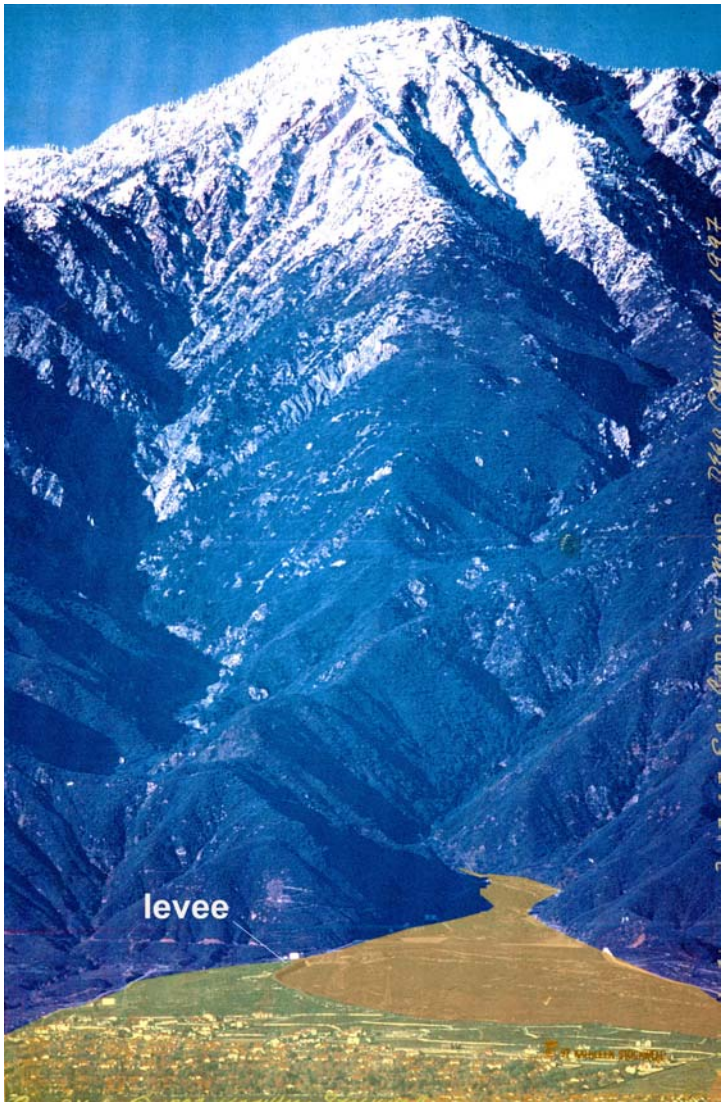


Fig. 3. Deer Creek alluvial flood plain. Cucamonga Peak rises more than a vertical mile above Rancho Cucamonga, but only 4 miles away.

Fig. 4. William Mulholland taught himself the engineering skills he would later use to direct construction of the Los Angeles aqueduct.

The citizen jury assembled for the inquest ultimately held Mulholland and the Los Angeles Department of Water and Power responsible for the disaster, but no criminal charges were ever pursued.[12] The old engineer's legacy was tarnished. Mulholland Reservoir was renamed Hollywood Reservoir and disguised by landscaping. The former site of St. Francis Dam and its flood path have been born again as San Francisquito Canyon. Geologists studying the scene 60 years later surmised that St. Francis dam failed because one side was built upon an ancient landslide—a critical flaw Mulholland had no way of recognizing, given methods at the time.

Still, the story of Mulholland and the St. Francis Dam should give us pause today. Even in modern times, flooding forces engineers to question their computations and expectations. The science of recording, predicting and preventing floods requires mastery of complex mathematics, but an engineer's job is far more than plugging in formulas. Flood control projects never completely eliminate the risk of floods. Mother Nature still reigns supreme and defends her title regularly.

The goal in designing flood control projects is to "manage the risk" as effectively as possible. This means that government will either try to protect its citizens from flooding or, if it can not do that, it will prohibit them from developing property in the danger zone, compel them to buy flood insurance or condemn their property altogether. Managing the risk means that the government minimizes, not eliminates, risks. It designs its flood control projects knowing that a larger-than expected flood could overrun the system and endanger safety. Some floods are so large the conditions triggering them only occur approximately every 125, 500 or 1,000 years. The government has learned that people do not want to foot the cost of building titanic, visually unappealing structures to guard against these super floods, even if it were possible.

Flood victims, of course, do not often see this distinction, but engineers must boil down society's amorphous stance on floods into actual blueprints. This takes years, and it mostly happens behind the closed doors of the responsible agency. Designing dams, channels, levees and flood debris basins is a balancing act, using a combination of scientific methods to predict the intensity and frequency of floods, modifying the size of projects depending on the level of safety required and the amount of money available, satisfying environmental and

[12] Cowan, Geoffrey. "The Man Who Brought the Water," *Los Angeles Times,* July 25, 1993.

other regulations, appeasing community representatives and contracting with local businesses for the construction work.

For all their challenges, flood control projects are bona fide catalysts for economic growth. Just as the Mulholland-designed Los Angeles Aqueduct enabled settlement and agriculture on arid land, flood control projects can transform flood-prone land into home and school sites for the next wave of suburban immigration. Yet the visible signs of earlier floods are often hard to detect or erased by new developments, and passersby can be forgiven if they fail to notice flood control efforts.

Underneath the homes are the stacked bones of 1,000 floods.

Near the eastern end of the San Gabriel Mountains, where Deer Creek enters the valley floor, flood control channels snake through gated communities with names like Haven View and Rancho Cucamonga V. Stucco fences and attractive shrubbery hide the concrete ditches designed to channel floodwaters. A low wall of sandbags on the northern periphery of one development might be mistaken for just another gardening project. A mile downstream on Deer Creek, in older single-family neighborhoods, the city has built extra-high curbs to use the streets as flood control channels. The families living there include many first-time homebuyers with big mortgages but no mandated flood insurance.

Underneath the homes are the stacked bones of 1,000 floods. Future deluges, however, must rain down upon a built-up landscape of sod, steel and pavement. The concrete channels of flood control projects, coupled with paved roads, buildings and other impervious manmade surfaces, whisk away precipitation that otherwise naturally percolates into the ground. The shakeup in the natural cycle causes diminished water quality, depleted aquifers and eradicated wildlife habitat. Velocity is another major drawback; while roughhewn open land can disrupt and slow running water, flowing water encounters little resistance on pavement. A full-grown man can step out of his car into four inches of water flowing down a street and be swept a dozen miles away to his death.

And sometimes dams like St. Francis collapse. This chapter, 75 years after Mulholland's nadir, investigates a little known Southern California flood control controversy as an illustration of how distaste for accountability and public debate within every level of government has generated extraordinary decisions that reputable experts say threaten public safety.

Consulting engineers, including those who represent the State of California and Los Angeles World Airports, have voiced unanswered concerns about the Army Corps of Engineers' flood control project on Deer Creek. Private sector engineers who have studied the project say it is dangerously undersized to the point of threatening 20,000 homes, two schools, a college campus and nearly one hundred thousand people in western San Bernardino County east of Los Angeles. Most at risk may be a half-dozen subdivisions in Rancho Cucamonga built in the last two decades along the western shore of Deer Creek. Also clearly threatened are middle-income homes and apartments that line Deer Creek for miles. (Experts warn that nobody can predict with total accuracy the path of a rampaging flood.)

The critics' main target is Joseph Evelyn, Professional Engineer, a 32-year civilian employee of the Army Corps in its Los Angeles District. He does not share many similarities with Mulholland, the larger-than-life Irishman who taught himself how to be an engineer and then paved the way for modern Los Angeles. But like Mulholland, Evelyn is a powerful engineer backed by a powerful agency, the Army Corps of Engineers. Evelyn's initial connection to the controversial flood control project on Deer Creek was in 1970 as a young engineer repackaging and coordinating the field work of other colleagues. (The project was completed by 1983.) Over the decades, Evelyn advanced to become chief of hydrology and hydrologic engineering for the Los Angeles District of the Army Corps of Engineers. In 1997 Evelyn became the Corps spokesman on Deer Creek matters.

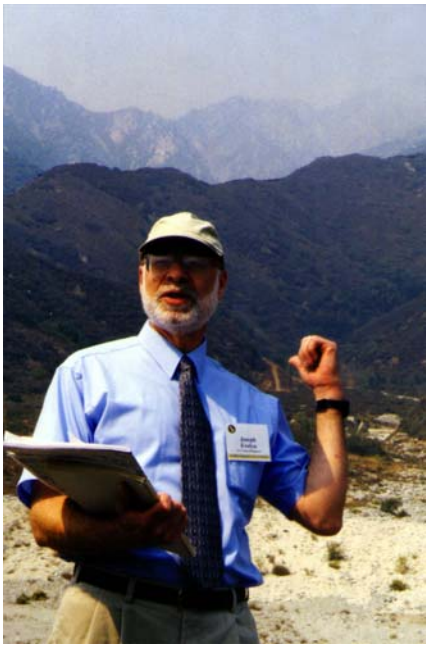


Fig. 5. Joseph Evelyn, Chief of Hydrology and Hydrologic Engineering, Army Corps of Engineers, Los Angeles District. Behind Evelyn is Deer Creek debris basin and the flanks of Cucamonga Peak.

For Mulholland, failure at St. Francis became a dark footnote to a storied career. If Evelyn and his colleagues have made wrong decisions about the Corps' flood control project on Deer Creek, they too may win an unfortunate place in history as another public agency deemed responsible for preventable deaths.

Alluvial Primer

Floods near mountain canyons act differently than those in river valleys. The potent mix that bursts out of canyons into the flatlands below contains water mixed with boulders, logs, dirt and sand, collectively called debris. The geographical features that result from this sort of flooding are called "alluvial fans."

Miles-wide, alluvial fans appear to rise cone-shaped hundreds of feet from the valley floor. People mistake them for foothills but the alluvial fans actually represent the accumulated flood debris of eons. They are scattered all over the American West. As water expert Art Bruington has written, "the alluvial cone feature so evident at the foot of every canyon emanating from the San Gabriel and San Bernardino mountains, including Deer Canyon, is startling proof that massive fire-flood sequences have happened in the past, and there is no reason to expect that they will not continue to occur in the future."

There are only two ways for society to deal with flooding on or below alluvial fans. The first method is time-tested: stay away and build in a safer place. Society's manmade solution is called a debris basin. Such basins are large excavated areas dug out of the mouths of canyons and braced by a low dam. As floodwaters and debris pour out of a canyon during a flood, the basin is designed to catch and store the debris (rocks, logs, etc.) while allowing the water to escape down a flood channel, usually lined with concrete to prevent erosion. Without a basin in place, the tumbling boulders and other debris from a flood could blast houses off their foundations, rip away bridges, destroy streets and kill people.

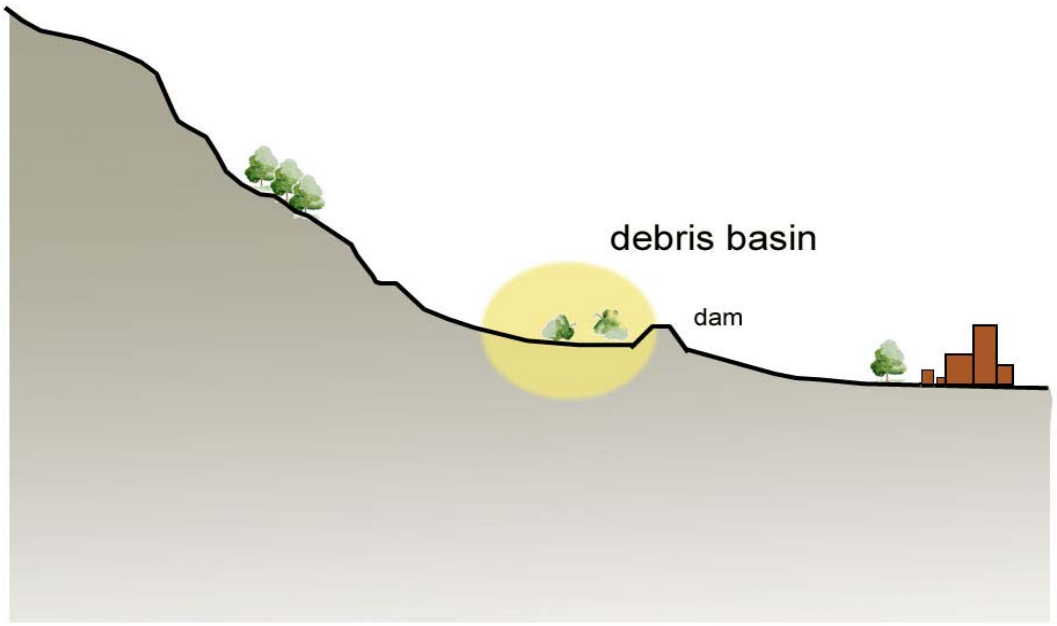


Fig. 6. The flow of debris, plan view. The debris basin is designed to trap rocks, logs and mud but allow water to escape in concrete-lined flood control channels. According to engineer John Cassidy, the Deer Creek debris basin and channel system are solidly built, just too small.

The proclivity in the San Gabriel Mountains for torrential rainfall, seismically shattered rock and forest fires makes Deer Creek and other nearby streams likely candidates for major flooding. But the real danger, according to critics, is that the Army Corps of Engineers' debris basin and reinforced concrete channel on Deer Creek offer the illusion of safety when, they say, little exists.

Deer Creek

The most controversial Army Corps of Engineers project in Southern California, according to the *Washington Post*,[13] is on little known Deer Creek above the city of Rancho Cucamonga in western San Bernardino County. A trickle most of the year, Deer Creek rages when weather systems blow in from the Pacific. The rocky San Gabriel Mountains, rising more than a vertical mile above Rancho Cucamonga but only four miles away, literally rip holes in storm clouds, sending rushing waters over seismically unstable and sometimes wildfire-scorched earth. Records from the 19th century note several large floods in the area, the largest of them in 1862. The last great flood was in the winter of 1969, when two storms a month apart caused 11 deaths.[14]

[13] Corps Controversial Projects, see http://www.washingtonpost.com/ac2/wp-dyn?pagename=article&node=&contentId=A38241-2000Sep8&notFound=true

[14] The 1969 floods also introduced officials to the dangers of multiple storm events. Workers were unable to clear away debris from a January flood when a second, smaller flood occurred about a month later. Floodwaters combined with debris from two floods caused widespread destruction of property.

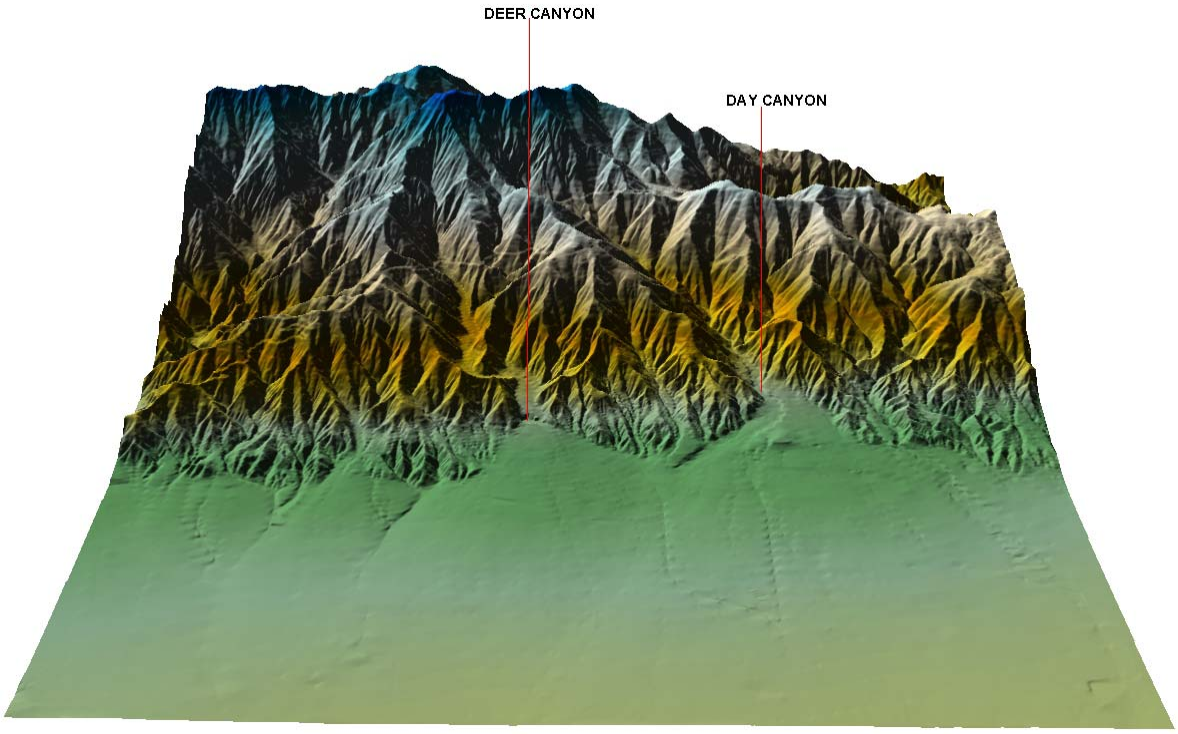


Fig. 7. Hills above Rancho Cucamonga rise steeply from less than 2,000 feet above sea level to almost 9,000 feet.

The Deer Creek debris basin and concrete channel are among flood control projects the Corps designed in the comparatively drier decades that followed. From the mouth of Deer Canyon, where the Army Corps of Engineers debris basin was constructed, the boxy concrete walls of Deer Creek leading away from the basin resemble a long waterslide into Rancho Cucamonga a few miles below. Like other parts of the San Gabriel Valley, orderly streets and housing developments have replaced rows of citrus trees. During a September 25, 2002 special field trip to the Deer Creek debris basin, several dozen members of a task force assembled by Governor Gray Davis to study floodplain management pondered a question one official offered up: "Would I buy a home there?" There was no consensus.

What Experts Say About Flood Safety at Deer Creek

Douglas Hamilton, an environmental engineer with the consulting firm Exponent Failure Analysis who was retained by a local homeowner, said of his first visit to Deer Creek debris basin: "I stood on the spillway and looked up and I knew within five seconds there was a huge problem."[15] Hamilton said his extensive research on Deer Creek has only confirmed his initial reaction.

Professional Engineer John Cassidy, a consultant to Ontario airport owner Los Angeles World Airports (LAWA), has warned repeatedly that the Deer Creek debris basin and the

[15] Interview with Douglas Hamilton, September 17, 2002.

channel emptying it are both too small. Cassidy has worked for the Army Engineers and helped design dams around the world for engineering giant Bechtel. He was hired to study flood control on Deer Creek because it flows underneath Ontario's runways a dozen miles below the Deer Creek debris basin. The airport agency is concerned that a lack of flood protection may threaten Ontario International Airport, which the agency hopes to expand to relieve pressure on Los Angeles International Airport. "The [flood control] structures themselves are well designed and well built," he said. "They just don't have the level of protection that the Corps said would be provided."[16]

Fig. 8. Deer Creek Debris basin and concrete spillway. Note residential development at left. Two dry channels of Deer Creek are visible at the bottom of the photo. At top, pond-shaped catchment basins flanking the spillway store water in wet years for recharge to underground aquifers.

After reading Cassidy's report, Robert Johnson, Los Angeles World Airports deputy executive director, criticized the Army Engineers for dragging their feet on mounting concerns over safety. In a May 10, 2002 letter to state Resources Secretary Mary Nichols, whose agency oversees the Department of Water Resources, he wrote, "The agency responsible for the initial design [the Corps] is apparently the same agency continuing to lead the rebuttal of a growing body of contrary opinion. We believe that [the state's investigation] was limited and greatly hampered by the tactics of the Corps and the U.S. Geological Survey. LAWA is not interested in escalating this matter further at the state level but we simply cannot ignore our obligation to protect [Ontario airport] and its tenants."

'One thing no one's addressing on Deer Creek is safety and health. This is more than that. This is an unsafe dam.'
-Massoud Rezakhani

Water experts have crossed swords with the Corps over the Deer Creek controversy, sometimes at peril to their careers. "I blew the whistle and I was fired,"[17] said Massoud Rezakhani, a hydrology expert who re-examined flood zone hazard mapping below Deer Creek debris basin in 2000 for a firm under contract to the Federal Emergency Management Agency (FEMA). "One thing no one's addressing on Deer Creek is safety and health. This is more than that. This is an unsafe dam." [18] Rezakhani was a consulting technical engineer for the Governor's Floodplain Management Task Force.

[16] Interview with John Cassidy, September 20, 2002.
[17] Interview with Massoud Rezakhani, September 26, 2002.
[18] Homeowners living below Deer Creek debris basin had asked FEMA to investigate the new potential for flooding if an existing levee was torn down. The agency responded eventually by hiring Michael Baker Corp. to investigate the matter. When Baker's employee, Rezakhani, told the homeowners his firm would criticize the Army Engineers' flood control design methods, he was terminated within days. Rezakhani has sued for wrongful termination. FEMA later refused to change the flood zone maps. The unfavorable diagnosis Rezakhani allegedly "leaked"—a criticism of the Army Corps' local flood prediction methods—never became part of the public record.

Dan James, a senior civil engineer for Rancho Cucamonga, balked at a private developer's plan in the mid-1990s to build a debris basin to protect two parcels of less than an acre each at a cul-de-sac directly below the mouth of a canyon adjoining Deer Creek. The developer was using a new version of Army Engineers methodology developed inside the Corps' Los Angeles District for predicting the severity of future floods. But for James, the method was untested and "didn't sit right," he said. His recommendation for a larger margin of safety derailed the entire project.

> "I believe using [the Corps method] would place an extreme burden on the City of Rancho Cucamonga," James wrote in a March 16, 1995 letter. "The method's founding agency and our County's flood control district have not designed a facility utilizing [the applicable Corps method]. Until one of these agencies is willing to put their…stamp on a design, the City is not willing to approve."[19]

Public officials such as Los Angeles World Airports deputy executive director Johnson have been vocal in repeated calls for a study from an independent nationwide scientific body, the National Academies of Science (NAS). Engineers not associated with the Corps, including a water expert with the California Department of Water Resources, have mentioned convening the National Academies of Science, but for a wider purpose: they want the scientific community to scrutinize how the Corps predicts floods in the American southwest.

Finally, Robert Kirby, a former Corps hydrologic engineer who contributed to the design of the Deer Creek project, has testified that in the 1960s "little was known of debris production," and the engineering community later realized it had failed to incorporate an extra measure of protection to handle multiple storms, such as the two floods a month apart in 1969 that swamped western San Bernardino County and killed 11. Kirby said officials used the best scientific methods available when designing Deer Creek's debris basin, but the project that resulted was still too small. "I strongly believe that these inadequacies need to be addressed immediately, and all future construction halted until viable solutions are identified and implemented."[20]

The Quiet Battle Over Los Osos High School

In June 2000 the Governor's Office of Emergency Services (OES) warned against providing state funds for the $48 million Los Osos high school project near Deer Creek because it lacked a proper flood evacuation plan. "The lack of dam failure inundation maps…is a substantial impediment to a full and considered evaluation of the schools in question…[P]rudence would dictate further action by the Department of Education in approving these schools be suspended until dam failure inundation maps are available and the reported discrepancies in the capacity of the Deer Creek basin are resolved," Director Dallas Jones wrote in a letter to Superintendent of Public Instruction Delaine Eastin.[21]

---

[19] March 16, 1995 letter from Dan James, City of Rancho Cucamonga Senior Civil Engineer, to Richard O. Massaro.
[20] Declaration of Robert G. Kirby, taken at Rancho Cucamonga, CA on April 24, 2000.
[21] Emphasis added. From Jones's letter to Eastin, dated June 6, 2000.

CGS's investigation shows that Jones' concerns were never fully addressed or even alluded to in the schools' official project approval documents. However, at least one Department of Education official was present at Senator Dianne Feinstein's office in San Francisco on March 11, 2001. That was the day when representatives from federal, state and local agencies sat down with interested members of the public to begin the task of evaluating safety concerns at Deer Creek—which directly affects safety at Los Osos.

In response to a Public Records Act request, the Department of Education opened its files on Los Osos to CGS. In the files, two unpublished memos discuss flood danger and Los Osos. Duwayne Brooks, a school construction official with the Department of Education, attended the meeting in Feinstein's office on January 11, 2001. He discussed the meeting in an email dated January 12, 2001:

> Bottom line, the various local, state and federal agencies have declared [Deer Creek] safe, which means we can approve the school site. There are some 'technical' disagreements that the various parties have that they will discuss further in the next 30 days. However, I confirmed with [former state Secretary for Resources] Mary Nichols in a private conversation after the meeting that it seemed reasonable for [the California Department of Education] to approve the [Los Osos] school site because the preponderance of current evidence shows that there is little if any danger posed by [Deer Creek], and if there were subsequently found to be any danger it would be resolved to ensure the safety of the citizens of Rancho Cucamonga.[22]

Official "site approval" documents from the Department of Education, dated May 2, 2001, say that "no potential hazards have been identified." Yet officials knew the case on Deer Creek was far from closed. Another Department of Education employee, facilities consultant Kent Van Gelder, included this observation in his June 2002 memo titled, "Thoughts on Los Osos":

> The task force that was formed after the [January 11, 2001] meeting was supposed to have completed its work in 30 days. It is now almost two years later. Then, it was concluded based on conversation with Mary Nichols that the Los Osos site would either be safe or would be made safe if there was a shortfall.[23]

When former Secretary Nichols was asked about Los Osos, she denied Brooks' account and said such an approval could never happen in an informal conversation. She says she barely remembers having a private conversation with Brooks and "if he thought that my statement… was a basis for making a decision, he was operating under an erroneous assumption."[24]

> 'The fact that OES didn't have an evacuation plan didn't have any impact on the safety [at Los Osos High School.]'
>
> *-Duwayne Brooks*

Interviewed by telephone on November 20, 2002, Brooks said that CGS has mischaracterized the January 12, 2001, email regarding

[22] January 12, 2001 email from Duwayne Brooks to former Superintendent of Public Instruction Delaine Eastin.
[23] June 10, 2002 memo from Kent Van Gelder.
[24] Interview with Mary Nichols, October 2, 2002.

Secretary Nichols. Asked to address the disconnect, Brooks maintains that "it was the opinion of all the people in attendance that it was to be determined safe or it was to be made safe." Brooks was also asked to reconcile the outstanding warning from the Office of Emergency Services regarding the lack of flood evacuation plans and concerns over general flood safety. He said, "The fact that OES didn't have an evacuation plan didn't have any impact on the safety of the site."[25]

Former Superintendent Eastin did not return requests for comment. The Chaffey Joint Union High School District, which built Los Osos, also has not responded to requests for an interview. The OES, somehow completely out of the loop, was not even informed that the Los Osos project had been approved over its objection. Meantime, classes at Los Osos continue. Without the use of Los Osos's new classrooms, officials would have to relocate more than 2,400 students.

By now the public has largely forgotten the winter of 1981, when floodwaters washed away Mitchell Elementary School in northeast San Bernardino, another campus within a few miles of streams emerging from steep hillsides. The grassy patch where the school and homes once stood is now called Twin Creeks Flood Control Basin.

Classes began for the first time at Los Osos on September 3, 2002. The school district makes no mention of flooding concerns on its Web site.

What the Corps Says

Joseph Evelyn and other defenders say the Deer Creek project is safe and has operated flawlessly since it was completed in 1983. (No significant storm has occurred in the area in the past 20 years.) Responding to his critics, Evelyn praises their engineering skill and competence but ultimately dismisses them as "individuals who are reflecting the wishes of their clients."[26] Asked if residents living below Deer Creek debris basin should feel safe, he says they should, but adds the engineer's caveat that "safe is relative here."

Joseph Evelyn is well aware of the dangers. Before he purchased his house in La Canada-Flintridge, he did his own analysis of the L.A. County debris basin protecting the prospective home site. Of the San Gabriel Mountains, he says, "you have mountains that are highly erodable, a landscape subject to wildfires and this year is a perfect example … an impermeable barrier [of burned soil] that increases runoff and leads to mass wasting [erosion] and movement of materials, very steep slopes, high intensity rainfall, the flow of air from the west hitting those mountains…"

Such terrain might be a reason for extra caution. Yet, say his critics, Evelyn has been overly optimistic. They argue he has underestimated the effects of wildfire, trivialized the historical record of flooding and shaped his technical data to achieve "safe" numbers. Confronted with their criticisms, Evelyn doesn't flinch, nor does he attempt to prove his detractors wrong.

[25] Interview with Duwayne Brooks, November 20, 2002.
[26] Interview with Joseph Evelyn, Friday, Sept. 13, 2002, Los Angeles, CA.

Evelyn's conclusions, backed by the Army Corps of Engineers and unchallenged by other federal or state agencies, have swayed the debate over Deer Creek so far.

In late 2000 California Senators Dianne Feinstein and Barbara Boxer asked the Army Corps of Engineers to meet with engineers from the state and two others hired by Los Angeles World Airports and the Rancho Cucamonga homeowner Malissa Hathaway McKeith. (The meeting, discussed on the previous page, took place January 11, 2001 in San Francisco.) The charge to the Corps and the other engineers was to determine if the Deer Creek project had the amount of flood protection the Corps said it did. What happened instead was a recitation of earlier internal reviews issued by the Corps on Deer Creek.

Each contributing engineer submitted separate, divergent findings. Generally, they all agreed that the Deer Creek project was too small in comparison to the projected severity of a serious flood. The degree of shortfall remains in dispute. The Corps says the shortfall is negligible. John Cassidy, representing Los Angeles World Airports, says the shortfall is so great that even minor floods could overrun the project.[27]

The other engineers could not find much common ground with Evelyn. They were not well versed in the methods he employed, and he refused to incorporate more widely known methods, such as those used by Los Angeles County or even those used by the Army Corps of Engineers outside the Los Angeles District. In other areas of Evelyn's flooding estimates, he included no safety factor or margin for error—not a safe bet given the history of fires and floods in the San Gabriel Mountains.

Evelyn's computations assume, for example, a "fire factor" of 3, an estimate that ignores the presence of wildfire on the hillsides above Deer Creek, according to Exponent consultant Douglas Hamilton, hired by Rancho Cucamonga homeowner Malissa Hathaway McKeith. The "fire factor" is essentially a numeric value assigned to signify how much fire-related debris (burned wood, ash and vegetation) may enter a particular stream during a flood. The "fire factor" ranges from a low of 3 which corresponds to an unburned watershed with mature vegetation, to a high of 6 which corresponds to a watershed that burned just one year ago. Hamilton says a fire factor of 3 is analogous to saying fire never visits Deer Creek.[28]

Pressed on this point, Evelyn dismisses Hamilton's criticism. He concedes that "if the watershed burned yesterday, you would get a huge number" on the size of an expected flood, larger than what Evelyn himself has estimated. But Evelyn has assumed that a flood on Deer Creek isn't likely to be influenced by fires at all. Evelyn explained this point while standing atop Deer Creek debris basin on September 22, 2002. As he spoke, the air around him was

[27] In John Cassidy's letter to Los Angeles World Airports, dated April 13, 2001, he concludes, "I believe that the Deer Creek Debris Basin is definitely too small to contain the volume of debris that would be carried into the basin by a 100-year flood. Its storage capacity may be as little as 25% of the 292 acre-feet of debris that the Corps of Engineers estimates would be produced by runoff from a severe storm."

[28] According to Douglas Hamilton, "the way the Corps justifies using [a fire factor of 3] is to say that, statistically, a watershed burns every 20 years. After a fire, it takes 10 years for the burned vegetation to mature and stabilize the watershed. Therefore the 'average' condition for Deer Creek is the unburned condition which scores a 3 in the Corps' debris method."

filled with flakes of soot from the 37,000-acre Williams forest fire advancing eastward, just a few miles away. A little more than a year later, Deer Creek burned in the old fire.

Hamilton says it is "reckless" to make no provision for fires on the hillsides above Deer Creek. "It undercuts the historical justification for debris basins," he says. "When the City and County of Los Angeles embarked on the debris basin concept in the 1930s, the biggest debris problems were associated with moderate rain storms after fires. I recall reading an old article in the Transactions of the American Society of Civil Engineers where a popular viewpoint back then was that fires were the main cause of [debris-filled flood] flows. The author's suggestion was to forget about debris basins and spend the money on putting fire hydrants all throughout the San Gabriel Mountains. This idea didn't go anywhere, but there has always been recognition that you are most vulnerable to debris hazards during the first four-to-five years after a fire and debris basins should be designed to handle this situation to a reasonable degree."[29]

In another interview with Joseph Evelyn, the engineer said he had come up with ways to construct better flood control on Deer Creek. The Corps could increase the capacity of the project by doing additional excavation, he said. However, he said that the improvements would be costly, would require extensive studies and perhaps would be challenged in court on environmental grounds. The obstacles against upgrading seem so great that he had not bothered approaching San Bernardino County officials with any kind of detailed plan, he said.

The clout wielded by the Army Corps of Engineers within the panoply of government agencies is nearly unmatched. Scientists, economists, environmentalists, celebrities, members of Congress and even U.S. presidents have failed to reform, direct or downsize the Corps. The conventional wisdom dogging the Corps, especially following a series of scathing *Washington Post* articles published in 2000, is that it is willing to interpret facts selectively in order to justify large new public works projects. Deer Creek, however, is quite the opposite.

In defending inaction on Deer Creek over the past five years, despite an expanding chorus of criticism, the Army Corps of Engineers has offered conflicting data, frustrated the efforts of California's U.S. senators and stonewalled a politically connected homeowner—apparently all to avoid a situation whereby the Corps might have to enlarge the project. The response is contrary to expectation. In the same region, the Corps has responded to the needs of south Los Angeles County communities by raising the walls of the lower Los Angeles River. And the Corps' $1.3 billion Santa Ana River project will reduce flood danger for Orange County homes and businesses. But on Deer Creek, the affected local governments, led by San Bernardino County, are not clamoring for more flood control. Instead they are deferential to the Corps' position or silent altogether.

Sometimes it is hard to tell the exact nature of the Corps' position. Regarding the capacity of the Deer Creek debris basin, for example, the Corps has in official documents estimated capacity variously. Separate documents lodged in congressional archives from 1965 list an expected capacity for Deer Creek debris basin as both 300 and 380 acre-feet. The Corps itself

[29] Hamilton, Douglas. From an Oct. 15, 2002 email to the Center for Governmental Studies.

says the basin was supposed to be 310 acre-feet in capacity. But notably, as greater outside scrutiny was brought to bear, the Corps' estimates have more closely resembled those made by critics. Some 162 acre-feet, an estimate derived from the "Corps' own data," was the capacity reported by the *Los Angeles Times* in its May 20, 2001 article on Deer Creek. And most recently, the Corps has told the State of California the debris basin can handle 172 acre-feet.

Figure 9 below shows Deer Creek debris basin. Three shaded areas correspond to the estimated debris capacity and deposition pattern reported in June, 2002 by the Corps, by Douglas Hamilton of Exponent Failure Analysis and by consulting Los Angeles World Airports engineer John Cassidy. Cassidy and Hamilton's estimates are similar, while the Corps estimates a much larger capacity.

Fig. 9. Topographic Model of Deer Creek Basin Looking Upstream (North) March 2002

Where the Issue Stands Today

No single agency or government entity is completely responsible for Deer Creek, as illustrated by Fig. 10 on the next page. Each public agency involved today is waiting for another entity to act. Evelyn, conceding that the debris basin may be slightly undersized, said it is up to the local communities if they want additional protection. "If the community (Rancho Cucamonga) or (San Bernardino) county want to expand the basin, we can work with them." Evelyn said. "From a practical standpoint, they have a very high level of protection already."[30]

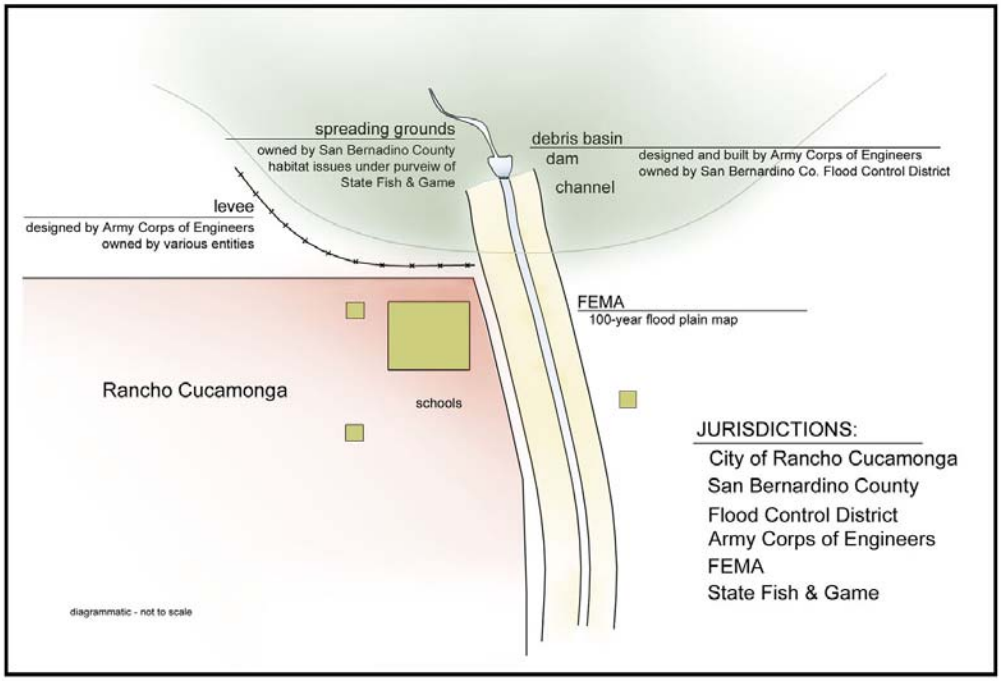
The Corps is waiting for the local governments to demand more flood protection. At the San Bernardino County Flood Control District, however, chief engineer Ken Miller told CGS Center he felt it was up to the Corps to make the first move. And in the state's report on Deer Creek, Secretary Mary Nichols asks Senators Boxer and Feinstein to take the lead. The senators had asked the state to take the lead after FEMA declined.
By contrast, Los Angeles County investigated the performance of its debris basins after flooding in 1969 and 1978 overwhelmed some of them. There was no widespread damage at the time, but county engineers nevertheless embarked upon a multi-decade project to identify debris basin problems. Some 65 debris basins have been tagged for further study, and of those, the county has completed 21 upgrade projects.

Today, responsibility for Deer Creek's failings is so diffuse that only a disaster could move the debate. Congress could appropriate the funds necessary for a National Academies of Science (NAS) review of Deer Creek and other debris basins. Getting the bill past pro-Corps members of Congress, however, is considered even more difficult than swaying local governments. While California's U.S. senators appear to speak with one mind regarding Deer Creek, Representative Joe Baca (D-San Bernardino) has chosen to remain silent. Boxer and Feinstein will not be able to appropriate money for a NAS study of Deer Creek when the local member of Congress is not supportive.

Representative Baca received a huge stack of Deer Creek-related documents, courtesy of homeowner-activist Malissa Hathaway McKeith, on the day after he entered office in 1999 following a special election. But ultimately Baca decided the entire issue "was not his expertise," according to his chief of staff, Michael Townsend.[31] However, Baca serves on the House Science Committee and has spots on the Subcommittee on Environment, Technology and Standards and the Subcommittee on Research.

In the last 10 years, due in part to population growth, the area surrounding Deer Creek has had its member of Congress changed twice by the redistricting that occurs following each diennial Census. After 2002 the area came under new representation yet again—this time drawn once again into Representative David Dreier's district. The Republican Dreier was reelected in November 2002. Figure 9 depicted below shows various jurisdictions surrounding Deer Creek and its environs.

[30] Interview with Joseph Evelyn, July 23, 2002.
[31] Telephone interview with Michael Townsend, October 18, 2002.



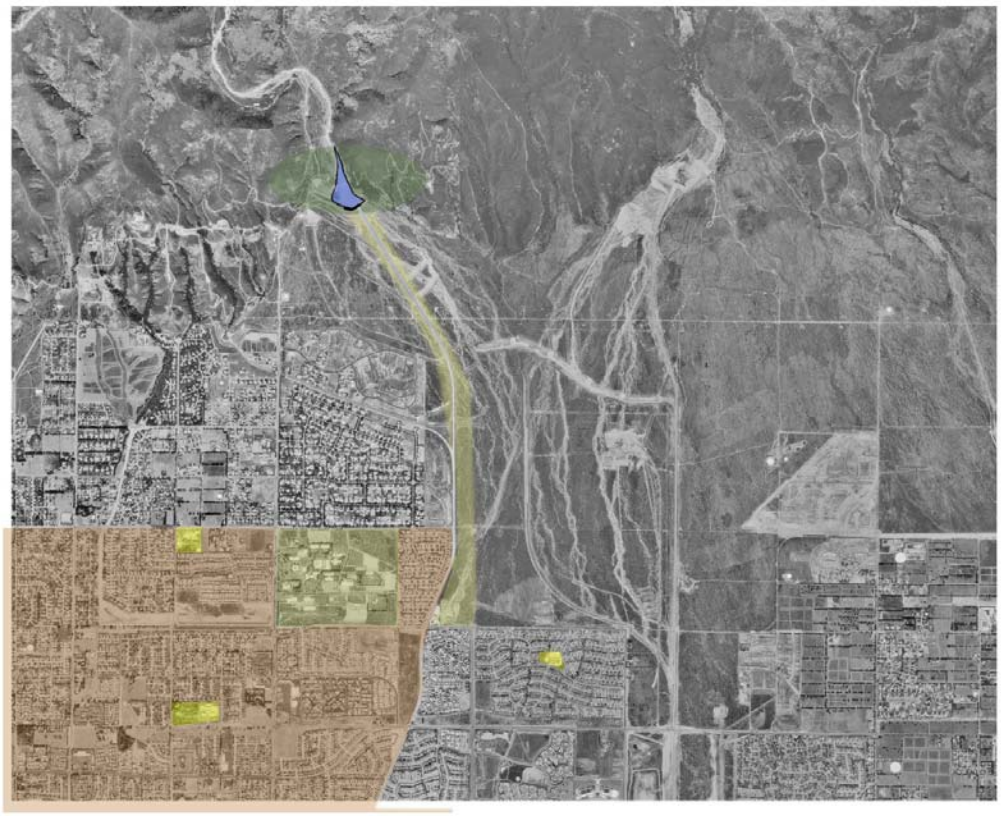


Fig. 10. Deer Creek Jurisdictions

Fig. 11: Circa 1890 photo, looking northeast from present-day Upland, shows sparse development. Courtesy of Ontario City Library.

Origins of Development: The 'Model Colony'

George Chaffey could see the future in 1882 as he gazed from a hilltop over present-day Upland, Rancho Cucamonga and Ontario, which were then nearly devoid of white settlers. "He is dreaming a dream which shall come true. He sees lying at his feet a colony settled by prosperous people, exacting a generous living from a soil thought by generations of Spanish proprietors to be unsuitable for settlement."[32] He and his brother William were recent arrivals from Ontario, Canada, intent on developing land and water infrastructure. The San Bernardino Valley seemed like the perfect place for the brothers, described by a biographer in 1928 as "idealists, engineers and mathematicians of the highest order."[33] The Chaffey brothers envisioned their cosmopolitan city as being anchored by alcohol-free living, a well-endowed agricultural college, tree-lined boulevards (Euclid Avenue was named after George's favorite mathematician) and ample water for irrigation.

[32] J.A. Alexander, Life of George Chaffey, Melbourne: Macmillan Co. Ltd., 1928.
[33] Id.

The Chaffeys' penchant for clean living drew many settlers and their town, named Ontario after their Canadian homeland, gained notoriety as a "model colony" when a scale model was unveiled at the World's FAIR. in St. Louis in 1904. But the proximity of a red-light district in Chino meant sin was always within reach. Flooding was another problem. Stately Euclid Avenue, lined with grevillia robusta (drought-resistant trees from Australia) and plied by a mule-drawn trolley, was being paved in 1911 when floodwaters swept down the street and destroyed the work.

Over the next 60 years, persistent flooding would bedevil development in Ontario and elsewhere in the sparsely populated area known as the West End (modern-day Ontario, Upland and Rancho Cucamonga). Local residents displayed a keen interest in taming the seasonal flows, dating back to the dawn of the 20th Century. These flows were marked in 1937 by Upland engineer R.V. Ward's "vast survey for flood control throughout San Bernardino county, which may warrant WPA funds," according to the *Ontario Record*.[34] The few flood control projects local landowners could finance consisted of dirt levees and rudimentary fencing.

Fig. 12: The great flood of 1938, pictured here, is considered the region's biggest flood of the 20th Century. The 1969 floods, however, caused significantly more damage because of a surge in development since 1938. Photo courtesy Ontario City Library.

Residents may have wanted flood control, but paying for it would prove to be a constant stumbling block. Following the devastating 1938 flood, the U.S. Army Corps of Engineers proposed a flood control project on the site of the modern-day San Antonio Dam. But 1,599

[34] *Ontario Record*, June 23, 1937.

West End residents, according to a local newspaper, signed a petition in opposition to the project "on the grounds that it is too expensive, that local taxpayers ultimatmely [sic] probably will have to foot the $75,000 annual maintenance, that the project's concrete channel constitute a grave menace to replenishment of the valley's underground storage basin….and that the dam itself, built on a fault, would constitute a grave flood menace."[35]

Fig. 13: Citrus trees were more numerous than residents in this circa 1947 view. Deer Creek's alluvial fan is at top right. Photo courtesy Ontario City Library.

Floods and Funding

As the decades passed, flooding problems continued throughout the West End. Local interests wanted something manmade and permanent to augment local water percolation areas—"spreading grounds" to soak up floodwaters—and crude levees to channel runoff. The Army Corps of Engineers performed surveys of the area in 1937, 1946 and 1956, but

[35] "1,599 Sign Petitions for Change in Flood Curb Plan," 1939 *Ontario Record* article courtesy Ontario City Library.

following each examination, flood control projects were seen as too costly for the rural West End. Finally, after a 1960 survey, Congress in 1968 authorized but provided no funding for the Corps' Cucamonga Creek Project, which included Deer Creek.

John Foley, now the director of the Moulton Niguel Water District, was the Los Angeles District Engineer for the Corps from 1973 through 1976, shortly before work began on Deer Creek. The Cucamonga Creek project almost did not happen, he said, because "there was reticence on the part of my superiors [who questioned] the value of building a benefit to serve a pure development scheme only."[36]

> '[Deer Creek] was not one of those projects that you send back to Washington and have it be accepted at face value.'
>
> *-John Foley*

Despite the project's authorization, it would be another seven years before Congress saw fit to appropriate funds. As strange as it sounds, the arcane sociopolitical science of redistricting may have been the mother of the Cucamonga Creek project. Prior to the 1974 elections the congressional districts in California were redrawn to reflect changes in population. Redistricting, seen widely as a tool of the majority party to consolidate its power, resulted in the elimination of the district that Imperial Valley Republican Victor Veysey had represented for two terms. Veysey moved north to try to recapture his seat but lost to West Covina Mayor Jim Lloyd, a Democrat. Lloyd was an aerospace man who served on the House Armed Services Committee. Local newspapers credited Lloyd with securing more than $100 million for the Cucamonga Creek project over his six years in office. Yet it was his vanquished opponent Veysey who was in a better position to pull strings for the project.

In the waning days of the Ford Administration, Veysey was appointed to a newly created position as the top civilian at the U.S. Army Corps of Engineers in Washington, D.C., where he served until shortly after Jimmy Carter's ascent to the presidency. Veysey's post, the Assistant Secretary of the Army for Civil Works, was created by Congress in 1970 as a way to bring a degree of civilian leadership and environmental sensitivity to the Corps. As a CalTech- and Stanford-trained engineer, Veysey seemed a natural fit. He was also in position to promote certain unfunded water projects, such as the Cucamonga Creek project, above other proposed water projects. "Veysey was very helpful in getting funds for the project," said Haden Helm, a retired Corps engineer who was a project planner on the Cucamonga Creek project.[37]

Even as the Corps' multi-year Cucamonga Creek project was under construction, local officials saw the need for much more extensive flood control. In 1977 a San Bernardino County Flood Control District official estimated at $330 million the cost of supplementary flood control channels and storm drains in the West End. "We don't have enough money to do the real work," district chief Art Sidler told the *Daily Report* newspaper. "That's why we've sought federal funds." The article also noted that the federal government was unwilling to fund flood control projects on Deer Creek because, as Sidler said, "although serious flooding can occur in that area, there isn't much development surrounding it that can

[36] Interview with John Foley, October 30, 2002.
[37] Interview with Haden Helm, October 30, 2002.

be destroyed. The federal government found it was not economically justified to grant money."[38]

Following passage of Proposition 13 in 1978, which permanently reduced property taxes, local governments saw their budgets slashed drastically. The San Bernardino Flood Control District was lambasted in a grand jury report for overstaffing and later saw its budget cut by more than half. Then, in early 1980, President Jimmy Carter ordered a freeze on funding for all current and future Army Corps of Engineers projects. Carter's strategy was in line with his "hit list" of 19 Army Corps projects he considered too wasteful to build. But ultimately the president allowed more funding for the Cucamonga project, and Congress went along.

Also in 1980, the San Bernardino County Board of Supervisors unilaterally passed an assessment to finance $15 million for storm drains and supplementary flood control channels.[39] The board unanimously repealed the assessment, however, after angry residents stormed a board meeting with tax bills in hand.

President Ronald Reagan entered office in 1981 promising a wave of budget cuts that prompted San Bernardino County officials to travel to Washington to plead their case. County Supervisor Robert Townsend voiced concerns that the Army Corps of Engineers was considering asking for a separate congressional authorization for flood control on Deer Creek and the adjoining Day Creek watersheds. Townsend "noted [that] corps officials tried to do that before. While the Deer Creek leg has been part of the overall plans since about 1976 and has not faced a similar challenge in recent years, Townsend said the concern is still 'valid.'" [40] Separate authorization could have meant years of funding delays or outright rejection of federal funds. Proponents for flood control at Deer Creek would have to jostle for position with countless other new projects. A project already authorized by Congress can receive federal appropriations years after the fact. Seeking new authorization might have been the kiss of death for development on Deer Creek.

With the Deer Creek leg of the project in jeopardy, and unable to pay for its mandated share of the Cucamonga Project costs, the county met with prominent area developers in May 1981 to discuss ways of raising a $5.9 million shortfall. Failure might jeopardize $36 million in remaining federal funds earmarked for the project, the group was told. Joseph DiIorio, a partner in Rancho Cucamonga Land Co., said the private sector would likely not contribute unless residents were taxed. Ralph Lewis, who formed the committee, added, "don't look to Lewis Homes for any large chunk."[41] But according to an August 3, 1981 article in *The Daily Report*, developers with holdings along Deer Creek pledged $1.9 million in loans to the county so it could meet its deposit deadline with the Army Corps of Engineers. Developers were to be first in line for reimbursement from state grants.[42] (The San Bernardino County

[38] Ziegler, Peggy. "Flood control cost…$330 million needed to guard tri-communities," *Daily Report* July 15, 1977.
[39] This was permissible under the law even following enactment of Proposition 13, which capped property tax rates. For example, if a community receives a "benefit" such as a streetlight, the government can assess property owners to pay for the cost, installation and repair of the streetlight.
[40] Green, Don. "Reagan cutbacks: County hopes federal flood control funds hold," the *Daily Report*, March 3, 1981.
[41] Green, Don. "Builders, officials try to save threatened project," *The Daily Report,* May 28, 1981.
[42] Green, Don. "Flood control work may go ahead without levy," *The Daily Report,* August 3, 1981.

Flood Control District did not release any information regarding the funding plan but denied that private landowners were involved in any way.[43])

David Dreier's defeat of Congressman Lloyd in the 1980 elections coincided with Ronald Reagan's rise to the presidency. Dreier, at 28 years old, was the emerging face of the Republican Party. One of the results was that while many Corps projects were cut back, Reagan's proposed budget for 1982 specifically included funds to begin work on Deer Creek. The entire Cucamonga Project including Deer Creek was completed in 1983, more than 40 years after the Corps began its surveys of the area. The anticipated cost of roughly $63 million (in 1973 dollars) had swelled to $140 million by the time the project was functional.

Voters Reject Locally Financed Flood Control

The Cucamonga Project was seen as only one component of flood control in western San Bernardino County. County supervisors tried to raise flood control funds via ballot measures in 1982 and again in 1983. Both measures failed to attract even a simple majority, much less the 2/3 approval Proposition 13 requires in order to pass tax increases. The 1982 version received support from only 42.1 percent of voters in a Congressional election year (turnout was 67.2 percent).

Measure W, the 1983 version, stood perhaps the best chance at passage. Among those endorsing the measure were the unanimous city councils and mayors of Upland, Ontario and recently incorporated Rancho Cucamonga, the two county supervisors who represented the area, all three chambers of commerce, the Montclair-Ontario school board, all four of the community newspapers and even the local mobile home owners association. Evidence of flood danger was especially fresh since the deaths of three people following heavy rains in the winter of 1983. Water rushed down north-south streets and swamped motorists such as Ruth Brady, who drowned after her vehicle fell into raging floodwaters along Hellman Avenue at Foothill Boulevard. Her body was discovered in the wreckage of a railroad crossing a half-mile downstream, but rescuers saved her husband.

Measure W anticipated that a normal family would pay $3.25 per month over the 10-year life of the so-called "benefit assessment." Larger landowners like the Southern Pacific Railroad complained that their burden was disproportionate, and other critics faulted the county for not including Ontario airport in the assessment district.[44] Whatever their reasons, voters stood firm: no new taxes. Only 14.6 percent of registered voters actually voted, and 54.2 percent of them voted no.

Controversy Emerges

The Cucamonga Project touched off a building boom, clearing the way for extensive development in western San Bernardino County in the 1980s, which grew fast enough to

[43] October 25, 2002 email from Ken Miller, chief engineer, San Bernardino County Flood Control District.
[44] The airport, owned by the City of Los Angeles, is like other government lands in that it is exempt from taxes.

warrant its own member of Congress after the 1990 Census. Water was the reason for the boom: not water for drinking, but protection from floods.

Development continued unabated near Deer Creek until 1997, when a developer sought to tear down part of a Depression-era earthen levee constructed by the U.S. Department of Agriculture and later improved by other federal agencies. The Corps of Engineers submitted letters to the city supporting the development. The Corps' spokesman, Joseph Evelyn, testified on behalf of the developer to the Rancho Cucamonga City Council that the levee was not needed because the Deer Creek debris basin and channel would sufficiently protect the hundreds of homes newly exposed to the mountains through the breach in the levee. He recently maintained this position in federal litigation filed by Defenders of Wildlife and the National Wildlife Federation against Secretary Ann Veneman of the U.S. Department of Agriculture for allowing the levee's destruction.

A formidable collection of citizens has challenged Evelyn and the Corps regarding his testimony. But this loose knit group—which included California Senators Boxer and Feinstein, respected flood experts, national environmental groups and Ontario airport owner Los Angeles World Airports—could not stop the city of Rancho Cucamonga from allowing the partial destruction of the levee in 2001. And it has thus far been rebuffed in its quest for an independent study by the National Academies of Science on whether the flood control projects on Deer Creek are truly safe. In the meantime, scores of new homes and two new schools have been built in the floodplain, supported by official approval documents making scant or no mention of the newly realized potential for flooding danger.

Negative Skew

At dispute is whether people living in the vicinity of Deer Creek are unduly at risk. Engineers translate such a question into equations comparing how much debris and water they expect will be spat out of Deer Creek's watershed versus how much capacity they think exists to store debris and channel runoff. Selecting the most appropriate method is of high importance. One criticism made against the Corps is for its use of "negative skew" when it reviewed flood risk on Deer Creek recently.

If an equation were a tree, skew would be the wind bending the tree. See Fig. 14 on the next page. Plotted on a graph, a positively skewed equation will curve upward while negative skew curves it downward. Skew can alter how far an equation will rise on its vertical axis. For the question at hand, the vertical axis signifies a flood's highest stage measured in how many cubic feet of floodwater passes a given point—usually a stream gage—in a second. Floods like the 1969 and 1938 events score high on the vertical axis while dry years score very low.

The U.S. Geological Survey (USGS), which measures and catalogues floods, used positive skew to express how large flood events like 1969 were possible in western San Bernardino County. The USGS could not account for the 1969 flood using its standard methods; it had to skew the equation positively so it would agree with the historical record.

The Army Corps of Engineers has done the opposite. For his Deer Creek estimates, the Corps' Joseph Evelyn skewed the equation *negatively*, away from the historical record. The

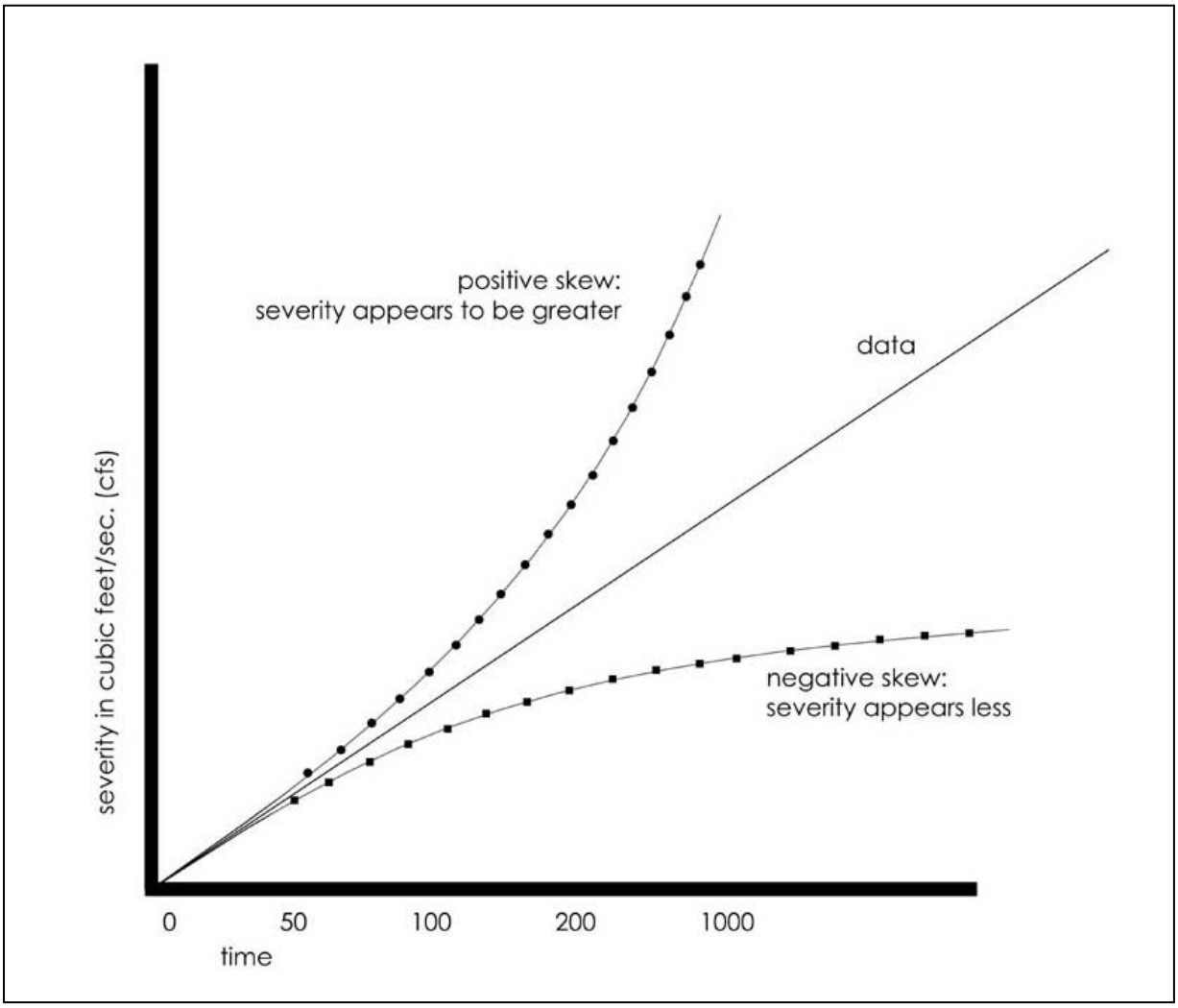


Fig. 14. Positive/Negative skew.

result was lower values on the Corps' y-axis. Essentially the Corps equation predicted smaller floods and failed to account for large floods that had already happened. Additionally, the smaller floods predicted by the Corps using negative skew suggest that future floods will be contained within the present debris basin and channel. Without negative skew, even the Corps equation would predict floods too large for the existing flood control project on Deer Creek.

Even for a powerful federal agency like the Army Corps of Engineers, it is hard to deny history. As the task force on Deer Creek began its work in the spring of 2001, other engineers questioned Evelyn about his use of negative skew. Engineers with the state Department of Water Resources, apparently leery of relying on the Corps, began an independent inquiry. That effort, however, ended inconclusively after engineers on the task force were shocked to

discover that the USGS was planning to "discredit," or expunge from flood records permanently, the 1969 flood as it was measured near Deer Creek. In one swift move, the Corps' negatively skewed equation seemed more in tune with the historical record.

The Man Who Made a Flood Disappear

In June 2001 Joseph Evelyn was able to take advantage of controversial research by a man named Robert Meyer, a longtime employee of the USGS. Meyer is critical of hydrologists in his own agency for their work in measuring the 1969 floods in Southern California including western San Bernardino County.[45] Ultimately, Meyer's work bolstered the tack taken by Joseph Evelyn—that floods like the 1969 event were overestimated and that the reality was less severe than the record.

> 'What is the concern about throwing away a measurement that's no good?'
>
> *-Robert Meyer, USGS*

Meyer, a surface water expert for the USGS, argues that existing records were flawed enough to be useless. He says it's simply too hard to measure floodwaters when the waters carry large debris—just like it's easier to gauge the volume of a can of soda than an iced-down fountain soda. In an interview, Meyer said the eradication of 1969 flood records resulted from more than a decade of his own research. "What is the concern about throwing away a measurement that's no good?" he asked during an August, 2002 interview.

Whether water, debris or some mixture thereof, something hugely destructive came out of the mountains in the winter of 1969. Meyer's actions have rankled surviving USGS scientists, who by now are retired or are veterans in their field. "We had surface water specialists in 1969 that were every bit as smart as surface water specialists in 2001," said John Singer, a retiree from the USGS who helped with aerial mapping on Deer Creek in 1969. "I'm totally amazed that someone would have the nerve to totally discredit that data. To say [the data is] not possible is unscientific, unfounded and reeks of something other than what the USGS is known for."[46]

For Singer and other water experts who have studied the issue, the furor arises less from Meyer's criticisms of the USGS's data-collecting methods back in 1969—which water experts partly concede—but rather from Meyer's decision to replace 1969 flood data with nothing indicating that the century's most devastating flood occurred during that season. The weight of Meyer's action became clearer when the Department of Water Resources-led task force on Deer Creek attempted to determine if the project's concretized rectangular channel was big enough. In mid-2001, the state and Corps concluded the channel was of sufficient

[45] Meyer said he invalidated the high watermark, or "peak flow" reading, from the Day Creek gage data from the 1969 flood because it didn't fit a mathematical equation he had devised that plotted all California "peak" flood flows on a single graph. The flow from Day Creek—the watershed next to Deer Creek—stuck out because it was so much higher than what Meyer expected from his equation. The Day Creek gage is important because Deer Creek has for several decades been "ungaged, " meaning there is no installation on site to measure flows. A primitive stream gage installed on Deer Creek was deemed unreliable in the early 1960s and removed. Many of the early gages were designed for irrigation purposes, not to measure storms. When historical records are not available, engineers often study flooding patterns on a nearby, similar watershed and apply their findings to the watershed under scrutiny.

[46] From a telephone interview with John Singer conducted on July 11, 2002.

size, and Joseph Evelyn went further, saying the channel could handle debris as well as water. The other contributing engineers, Douglas Hamilton and John Cassidy, submitted findings showing the channel was likely to become clogged with debris and send floodwaters outside the channel walls. The operative difference was that the state and the Corps did not substantially incorporate the deadly 1969 floods in their measurements whereas Hamilton and Cassidy did.

In an August 2002 interview, CGS was told that the U.S. Geological Survey has reopened review of Meyer's work. The USGS is also weighing new regulations that would make it harder to invalidate flood records. Its recent actions were spurred because of the Deer Creek controversy, according to the USGS's Menlo Park-based surface water specialist, Mike Nolan. "We're trying to shine as much light on this as possible," he said.[47] But according to a September 30, 2002, memorandum, FEMA officials continued to reinforce Meyer's argument, not question it.

This led engineer Douglas Hamilton to assert that "this USGS precedent [of removing potentially faulty flood records], followed to its logical end, would result in virtually all of the Southern California flood peaks from the two largest recorded flood seasons (1938 and 1969) being cross-examined and ultimately removed from the record due to the presence of debris flows. Ironically, the very process that makes large flood events in Southern California so hazardous has caused these floods to be banned from the historical record. Of course I, along with many other floodplain policymakers, protest this action."[48]

Meyer appears unconcerned by the criticism. A year after Meyer's work invalidated 1969 flood records, William Kirby of the USGS asked in an email whether it was prudent to eliminate flood data from 1969 without finding some way to "alert the conscientious analyst that something noteworthy had happened" that year, namely, a deadly flood.[49] Meyer's emailed response was that he could discern "no useful information" from the available record. Although it took Meyer years to amass the evidence he used to invalidate 1969 flood data, he does not feel the USGS needs to acknowledge the historical record by making revised estimates of the 1969 flood on its own. "Perhaps the agencies in the area should pay for us to make estimates of some kind," Meyer wrote in a January 2002 email to his U.S. Geological Survey colleague, Mike Nolan.[50]

Invalidating flood records is very rare; there are only a few such instances, although the USGS has records of thousands of floods. Joseph Evelyn used 1969 flooding data in the Army Corps' November 1999 report on Deer Creek, [51] but by adopting a negative skew to the

[47] From an August 6, 2002 telephone conversation with Mike Nolan.
[48] Letter of Doug Hamilton to Mike Nolan, surface water expert, U.S. Geological Survey, dated October 26, 2002.
[49] May 6, 2002 email titled "re:regression decisions – and Day Creek" from Robert Meyer to William Kirby, et al.
[50] January 24, 2002 email from Robert Meyer to Mike Nolan, titled "Fw: Deer Creek Report."
[51] The November 1999 report unveiled a new estimate for how much debris was expected to come out of Deer Creek during a 100-year flood. The amount, 292 acre feet of debris, was considered less than the stated capacity of Deer Creek debris basin until several months later, when an investigation by Exponent's Doug Hamilton concluded that the usable capacity of the basin was smaller than the amount the Corps had originally maintained was the capacity, 310 acre feet. The Corps now says Deer Creek debris basin holds 172 acre feet but only 188 acre-feet is expected in a 100-year flood. Although Joseph Evelyn can correctly say that he used 1969 data in his computations for the Department of Water Resources technical review

data, the statistics downplay the 1969 flood event. Two years later, when Robert Meyer took steps to remove 1969 flood records, there were no longer existing records that could challenge Evelyn's use of negative skew. Two federal agencies are now satisfied Deer Creek is safe; however, their judgment depends on the notion that floods in the San Gabriel Mountains are milder than floods elsewhere. Experts like Hamilton and Cassidy say the opposite is true, and point to the 1969 record as an example.

The Perfect Storm

When trying to predict the severity and frequency of future floods, hydrologic engineers consider a number of variables: the size of the watershed delivering precipitation to the stream, the steepness of the terrain, the incidence of fires that can dump burned vegetation into streams, the historical record of floods in the area and other factors. Engineers use these data to write equations that relate the incidence of the variables to the ultimate size of a flood. In theory the equations can be tested by applying them to recorded flood events in history and it can be seen if an equation "fits" the data and can be used for accurate predictions.

But when no data exist, engineers must use data from somewhere else and apply it to the watershed under examination. Deer Creek had a stream gage until the 1960s when it was deemed unreliable. Around this time the Army Corps of Engineers began to plan schematics for flood control on Deer Creek. Without reliable information on Deer Creek, the Corps decided to study a storm from another watershed and then apply the data.

According to Joseph Evelyn, the Corps used 1943 flooding data from a storm in Sierra Madre (a city a few miles east of Pasadena) as a way to predict the expected severity and frequency of storms at Deer Creek. The problem with using a project storm from Sierra Madre, according to engineers Hamilton and Cassidy, is that the topography of the San Gabriel Mountains is significantly more mountainous at its eastern terminus than the centrally located Sierra Madre. The northernmost neighborhoods in Rancho Cucamonga are 6,000 feet below and four miles away from the nearest large mountain, 8,891-foot Cucamonga Peak. In Sierra Madre, the rise is much more gradual. See Figure 15 below.

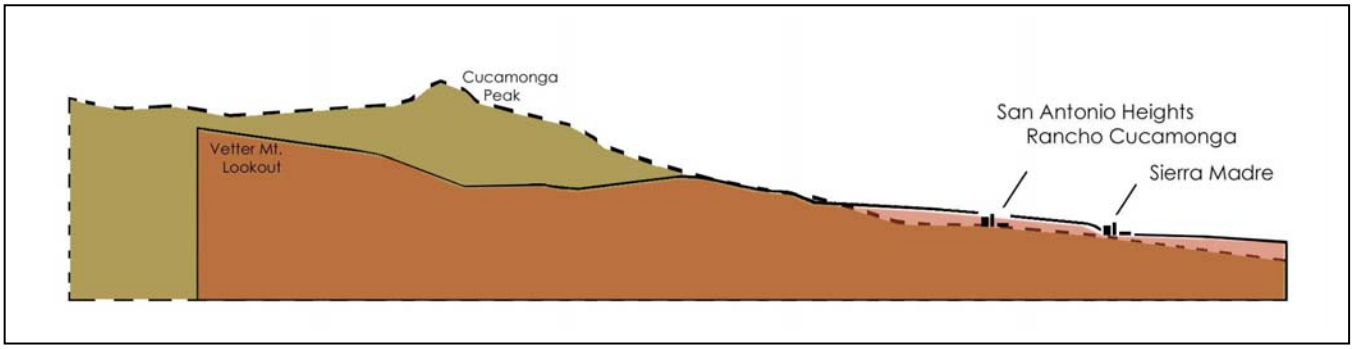


Fig. 15. Comparison of slopes about Sierra Madre and Rancho Cucamonga: Rancho Cucamonga is steeper over a shorter interval.

committee, he effectively ignored the occurrence of both the 1969 and 1938 flood events by imposing a negative skew on the statistics.

The dispute is larger than Deer Creek. Joseph Evelyn said the Sierra Madre storm figures were used in the design of the entire Cucamonga Project. No engineer is making the assertion that there are fundamental flaws with every debris basin designed by the Corps in Southern California. But if the Corps ever concluded that its design was deficient at Deer Creek, questions will surely arise about the other basins in the Cucamonga Project, if not elsewhere in the nation. FEMA has mapped 134 alluvial floodplains in Southern California, and more are sure to be identified as they become urbanized.

Over decades the Los Angeles District of the Army Corps of Engineers has improved upon its design of flood control projects in Southern California and used it as a model for projects in other Sun Belt states. The complex flood prediction equations the Corps uses in the Los Angeles District are designed specifically for southwestern topography: steep, crumbling mountains that burn often and are pelted seasonally by storms. By all accounts, the San Gabriel Mountains are an especially extreme example—worthy perhaps of positive skew. Instead, Evelyn reversed the trend of measured, historical flood data by choosing a negative skew coefficient.

Skepticism of the Corps flood prediction methods in the Los Angeles District has mounted partly because the district's methods are not well known outside its downtown Los Angeles high-rise headquarters. Consulting engineers who have criticized the Deer Creek project say that the methods they themselves use—the federally sanctioned and scientifically reviewed methods they employ as project designers, consultants or expert witnesses—were rejected by the Corps' Evelyn in favor of his in-house method, the Los Angeles District Method for the Prediction of Debris Yield. This stance is contrary to the Corps' own how-to guide on handling "Disagreements Among Experts":

> Disagreements among experts or agencies about the existence of a threat, its severity or the appropriate reaction [are] confusing. From the perspective of the lay person, they are being asked to make a decision that can't be decided by the experts. Minimizing these kinds of problems requires ensuring that the experts are working with the same basic information and using the same assumptions."[52]

'A Slumbering Volcano'

The records of the San Bernardino County Flood Control District, obtained through the National Archives, describe how the whims of nature can disguise the dangers of living near the outlets of mountain streams, on miles-wide cone-shaped mounds of ancient sediment known as alluvial fans. After 1969 the District considered Cucamonga Creek, the more populated watershed just west of Deer Creek, to be a "slumbering volcano" that "lies quiet and dormant over great periods of time, lulling its co-habitants into a state of false security. Then suddenly, with little if any warning, it strikes with a vengeance, including great

[52] Explaining Flood Risk, Davis, CA: U.S. Army Corps of Engineers, 1990. Page 13.

property damage and even death. And so it was in the floods of 1914, 1927, 1938, 1943 and 1969."[53] The passage goes on:

> Large floods had occurred in the valley during both the winters of 1965 and 1966, resulting in a Presidential disaster proclamation for the County. However, in both instances, Cucamonga Creek was docile….[T]he people of the alluvial fan, as might be expected, were led into a state of lethargy. Then, in January and again in quick succession in February, 1969, the creek struck with a vengeance and fury never before equaled in recorded history.[54]

Fig. 16: The Great Flood of 1969. Photograph courtesy Ontario City Library.

California Looks the Other Way

Officials representing the State of California wasted an opportunity to use the Deer Creek controversy to launch a wide-ranging debate on debris basins and flood safety. Former Resources Secretary Mary Nichols has maintained that the state's only jurisdiction is through the Division of Dam Safety inside the Department of Water Resources. In essence Nichols

[53] From Page 8 of the San Bernardino County Flood Control district historical records obtained at the National Archives and Records Administration Pacific Region (Laguna Niguel, CA).
[54] Ibid, Page 21.

argued that the state's legal power only extends to whether the dam bracing Deer Creek debris basin has structural integrity—not whether the basin is big enough.

In reality the state can hardly conclude its interests end at the dam. The recently constructed Los Osos High School situated near to Deer Creek, for example, is eligible for $24 million in state reimbursement funds. Freeway bridges designed by Caltrans, including those on the Foothill (210) Freeway extension project, might be undermined by floodwaters. The California Department of Fish and Game oversees habitat issues on Deer Creek's depleted spreading grounds.

The state has failed to coordinate or direct the efforts of even its own departments. Just months after one agency, the Governor's Office of Emergency Services (OES), advised the state to stop funding the Los Osos school project, another agency, the California Department of Education (CDE), was seeking a way to allow the school to be built without OES approval.

In May 2002, the Resources Agency rejected the suggestion of the state's water policy expert, Tim Ramirez, to recommend convening the National Academies of Science on the Corps' methods for debris basins. A statement Ramirez added to the state's draft report, calling for a NAS study, was deleted from the state Department of Water Resource's final report on Deer Creek (the one requested by Senators Feinstein and Boxer) but appeared in an internal email from May 6, 2002. Subsequent emails, however, state only that the state has "no objection" to outside review by the National Academies of Science. (NAS) The "no objection" language appeared on the state's final report, which in essence meant the state decided not to pursue a NAS study.

Ultimately in June 2002, the Department of Water Resources concluded that flood debris from Deer Canyon was likely to fill the debris basin and channel past its capacity.[55] Though they calculated that 80 acre-feet of debris would spill out of the dam, they did not predict what might happen next. And the state has not made substantive demands on the Corps to fix the problem. Questioned about why she decided not to invite NAS study of the matter, Former Secretary Nichols said "their results are extremely dependent on the exact question you ask them and who is on the panel."[56]

In reality the state's task force on Deer Creek suffered from at least the appearance of bias. As a precursor to its formation, Rancho Cucamonga homeowner Malissa Hathaway McKeith (whose consultant Douglas Hamilton was part of the task force) had to promise not to use draft findings of the task force as a basis for litigation against a developer who aims to build new homes near Deer Creek. The state also failed to respond when the Army Corps of Engineers refused to collaborate with other participants on a common hydrological method for sizing up expected future flood flows and comparing them to flood control project capacity. At the behest of Senators Boxer and Feinstein, the state coordinated the task force.

---

[55] See Deer Canyon Debris Basin, Dam No. 87-11, San Bernardino County, Report of the Coordinated Technical Review Committee, January 7, 2002. On Page 4, on TABLE 1-Summary of Results, the Department of Water Resources reports a "Basin Deficit" of 80 acre-feet.

[56] Interview with Mary Nichols, October 2, 2002.

But the Army Corps of Engineers dictated the outcome. That is presaged in the charter drafted to guide the task force. In the charter there is no mention of ascertaining a possible flooding threat to communities near Deer Creek. Instead the charter spells out which technical statistics should be sought and then concludes with legalistic language stipulating that participation in the task force should not be seen as an admission that safety is compromised at Deer Creek. In the end the statistics the task force published were nearly useless. The task force had no unified stance. The degree of flooding danger on Deer Creek depended upon the source of the information—exactly the sort of confusion the task force was meant to clear up.

In an interview with Mary Nichols on June 7, 2002, several weeks before she signed a letter to Senators Feinstein and Boxer prefacing the Department of Water Resources final report on Deer Creek, Nichols was asked whether Los Osos students were safe from flooding danger. In response she underscored the need for more classrooms all around California and suggested that finding suitable land with absolutely no safety concerns was not always possible. As an example, she mentioned the infamous Belmont Learning Center in downtown Los Angeles, a project built atop an old oil field seeping methane and hydrogen sulfide.

Members of the public could follow Belmont's progress, however, through the newspapers. With Los Osos, the media coverage dwindled after the Department of Education approved the site in mid-2001 and resurfaced only to show students entering its doors. The reasons why Los Osos was deemed a fit site for school kids have never been publicized.

The state Resources Agency, after it perhaps unwittingly allowed construction of a school in a flood plain, declined to invite the National Academies of Science to make an independent assessment of the Corps' design methods. By stating its official position on the NAS study as "no objection," the state in effect chose not to serve as a "local interest," *i.e.,* a city, county or state government. The Corps of Engineers has already agreed to fund its portion of an NAS study, but only if a "local interest" stepped forward and funded a fraction of the total cost, expected to be less than $1 million.

Uninterested Locals

Local homeowner Malissa Hathaway McKeith attempted to finance the local cost of the NAS study herself, but she was turned away by the Corps, who said the request must come from a government entity. There were two other possible "local interests" that could have triggered action by the NAS. However, the city of Rancho Cucamonga and San Bernardino County officials have consistently declined to take action.

Deer Creek debris basin lies outside Rancho Cucamonga city limits, and this fact allows the city to decline comment or spend money on the issue. Obtained documents show that as early as 1993 the city had misgivings about the Corps' debris basin design methods, at least for smaller watersheds. A few years later, however, the Rancho Cucamonga City Council was willing to allow the breaching of a levee and dismissed opponents by referring them to the Corps.

The San Bernardino County Flood Control District is the owner and operator of the Deer Creek debris basin. Although it has done its own research on Deer Creek, agency engineers deferred to the Corps during the state-led task force on Deer Creek, which concluded in June of 2002.

The San Bernardino County flood agency has much to lose if flood control at Deer Creek is deemed substandard. The agency repeatedly tried to convert public land located near Deer Creek for private development—even land that the Corps said should be set aside for groundwater recharge. After it could find no willing developers or private buyers, it sold land situated near Deer Creek to Chaffey Joint Union High School District, which built and opened the Los Osos High School on it over the concerns expressed by the Governor's Office of Emergency Services. The agency's development of open space intended for groundwater recharge areas has drawn a federal lawsuit from environmental advocacy groups, which are asking the U.S. to reassert authority over its former property and stop further development. The lawsuit is pending before a federal district court judge in Washington, D.C.[57]

Local and state representatives from districts surrounding Deer Creek decline to acknowledge serious concerns over flood safety. Several of these officials may be deterred by their own success in wooing new development. Rancho Cucamonga's moderately priced housing developments are attractive to first-time homebuyers, but the entire area would suffer economically if the responsible agencies changed their stance on Deer Creek. The Corps' certification of 100-year flood protection[58] releases property owners from the costly mandated flood insurance payments others must pay, as did other communities along the Los Angeles River until a recent Corps project fortified the river levees. Bonded debt (such as bonds sold to finance construction of schools, homes, etc.) also becomes more costly to repay when the level of risk rises.

CGS received little or no reply to repeated requests for interviews with former Rancho Cucamonga Councilmember (and current Republican Assemblymember) Robert Dutton; San Bernardino County Supervisor Jon Mikels; Paul Biane, a Rancho Cucamonga Councilmember who recently defeated Mikels for his seat; Republican state Senator Jim Brulte; or Chaffey Union High School District facilities executive Susan Sundell.

These former public officials may simply be reading the public's low level of interest in flooding issues. Over a three-year period, two homeowners associations and environmental groups filed seven lawsuits against Rancho Cucamonga and a developer trying to breach the Deer Creek levee to accommodate more development. (One lawsuit remains pending in federal court.) Lauren Development home sites, owned by Newport Beach developer Robert Cristiano, are situated uphill from an existing gated community and partially within an area originally controlled by the federal government for the provision of flood control, the aforementioned earthen levee built in the 1930s. Residents already living beneath this proposed Lauren development may rightly have worried that that their vistas would be

[57] Case number 1:01CV01201 EGS.
[58] A 100-year flood is a major event expected to occur only once in a 100-year period, and thus has a 1 percent chance of occurring in any one year.

spoiled and that real estate values of their own homes would decline if another development were to be built between them and the mountains. Worries about floods, however, were not a priority. In fact, both associations were sued for misuse of membership dues, with plaintiffs alleging that the constant legal battles were sapping funds meant for landscaping and gardening.

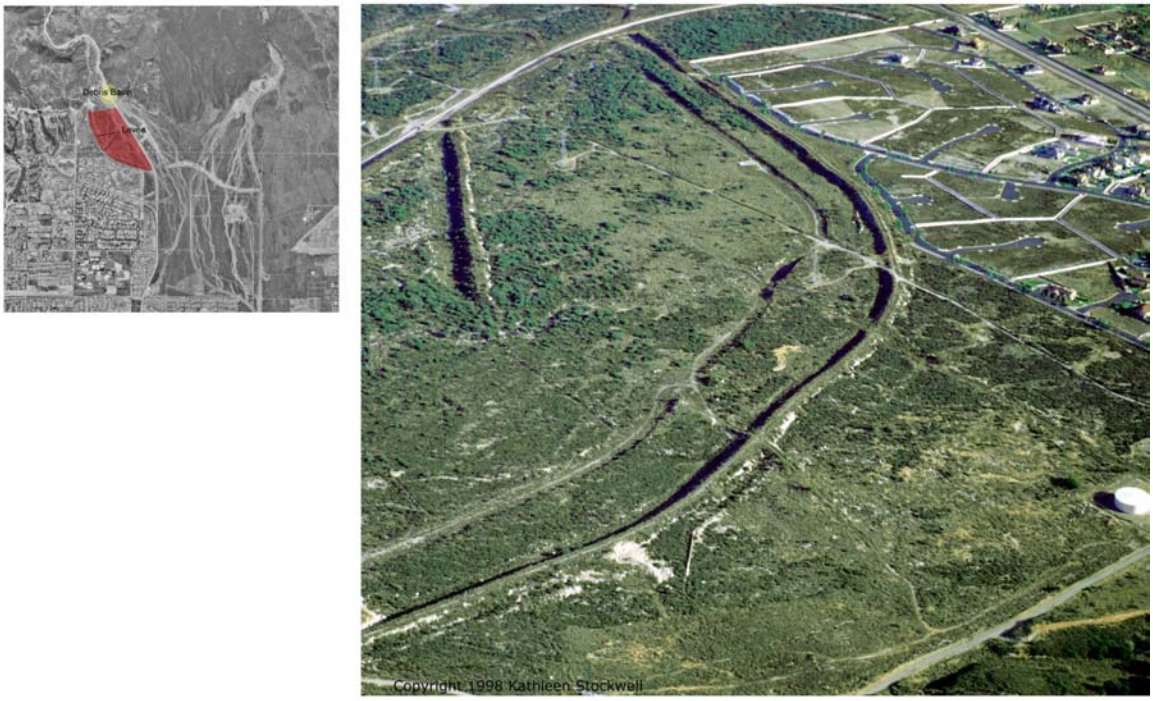


Fig. 17: The levee below Deer Canyon. Lauren Development is planning to construct 40 homes in the area.

Affordable Views with Blinds Drawn Over History

The state's inaction and reluctance to stir a wider debate affect not only Rancho Cucamonga and its environs but also any community that has allowed or is considering development on alluvial fans. In areas like western San Bernardino County, alluvial fans are the only "desirable" and affordable lands left for development. This puts great pressure on local authorities to clear away obstacles against development rather than slow or discourage it in any way.

Former Bechtel engineer John Cassidy has said that assessing and assuring flood protection in areas near mountain canyons is vital, considering developers' taste for homes built on alluvial fans, "because for the most part construction can be accomplished quickly and cheaply." Alluvial fans are essentially ancient piles of sediment and usually have a uniform slope. For contractors, Cassidy said, "there is a minimum of excavations to be done, simply enough for the home foundations and the roadways. Alluvial fans, being on a grade of (roughly 4 percent) provide for great 'view homes' since the downhill home cannot generally hurt views from above it." [59]

[59] From the August 27, 2002 email from John Cassidy to the Center.

Homeowners rarely are told or understand that it took eons of flooding to build up enough sediment to create what an average person might call a hill. There are no laws requiring disclosure of flooding risks unless the parcel of land for sale lies inside an "inundation" zone as determined by the appropriate agency. In this case San Bernardino County has no approved inundation maps on file with the state and thus has no requirement to inform residents of flooding risks. "Everyone identifies with floods when they are alongside a river where you can always see water flowing and the flood plain is there," Cassidy said. "However, it is difficult to get people to realize the threat even if they are on the flood plain. An alluvial fan is a flood plain, but because it is dry and gravelly or rocky most people can't identify with it as such. Floods in the desert and on a hill at that?"[60]

Against the Flow

Michael Bohlander, a high-ranking sedimentation expert from Los Angeles County, suffered a career setback after taking a position contrary to the Corps on Deer Creek. Bohlander was an 18-year veteran with the county Department of Public Works and headed its sedimentation unit when Exponent's Doug Hamilton asked him to do a peer review of his work on Deer Creek.

Ironically, Bohlander was at the time a part of an elite team of L.A. county engineers who kick-started a massive upgrade program for more than half of the county's 115 debris basins. Southern California floods in 1969 and 1978 caused failure at several of the county-designed debris basins, leading to widespread flooding. Engineers learned that in steeper areas the debris spewed out during heavy rainfall periods was turning the basins into more of a speed bump than a catchments device. LA county engineers did a thorough analysis and decided to embark on a decades-long improvement project, all without impetus from elected officials. Costs—including condemnation of homes, additional excavation and raising of walls and fences—are expected to run into the tens of millions of dollars over a period of many years. The project will be financed through property tax revenues from local Los Angeles County residents.

Over the years, engineers from around the nation (as well as Taiwan, China, Japan and Spain) occasionally sought out Bohlander for advice on L.A. County's design of debris basins, and he wrote official responses under the official letterhead of the county Department of Public Works. He was known as an expert in the science of debris flow.

Then came Bohlander's May 1, 2000, letter concluding that, based on his review of Hamilton's figures, the debris basin at Deer Creek was undersized and created a public safety risk. This brought Los Angeles County into conflict with the San Bernardino County Flood Control District, which owns and maintains the flood control facilities on Deer Creek, and

[60] Cassidy's view was exemplified, albeit in reverse, by engineer Richard Massaro, during a 1995 meeting in Rancho Cucamonga over the design of a debris basin the city said a developer must build to protect a planned housing development. Told the basin needed to be larger than existing Corps' standards, Massaro considered that a plot to halt the development. "Huge areas of land are set aside which can become ugly scars on the landscape and large breeding grounds for disease-carrying insects such as mosquitos," Massaro wrote. "Worse yet, good developments in the hands of honest, hard-working citizens is being set aside to accomplish a function in a most inefficient manner."

with the Army Corps of Engineers, who designed the project and transferred ownership to the county upon completion.

Days after the letter was sent, Bohlander said he was told he was to be disciplined, according to a recent interview. Asked to sign a letter of reprimand, he said he refused because the letter made simple misstatements of fact. His superiors didn't express any opinion on his technical opinions. Rather it was whom the opinions criticized—the Los Angeles District of the Army Corps. "Mr. Bohlander's comments are in no way a reflection on how the Los Angeles County Department of Public Works views the design standards of the Corps of Engineers," Deputy Director Gary Hartley concluded in the May 17, 2000, letter to the San Bernardino County Flood Control District.

Bohlander maintains that his critique was hardly a declaration of war but was treated as such. "If I had been chief of San Bernardino County flood control, I would have said 'big deal' and forgotten about it," Bohlander said. "L.A. County has a specific flood control standard and that's how we measure things. If you want that standard, move there."[61]

Bohlander left the county's employ in 2001. Deer Creek "was the catalyst for me to leave the County of Los Angeles," he said. "It was the wake-up call for me to take a look at my life and the way my work was going in the department."[62]

The Corps Takes Offense

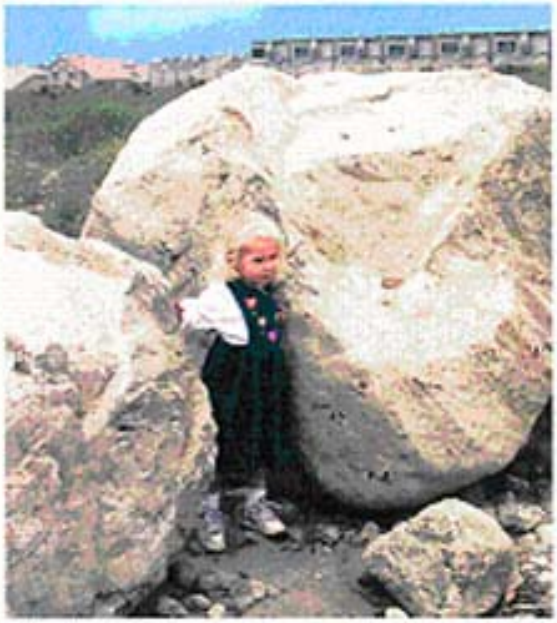
The commissioning of an independent study of Deer Creek, led by concerned homeowner Malissa Hathaway McKeith, endowed the controversy with credibility past what ordinary NIMBY (Not-In-My-Backyard) activists can do. The environmental consulting firm Exponent Inc. performed an independent analysis of the debris and floodwater capacity at Deer Creek. In March of 2000, a nonprofit group McKeith originally formed for Deer Creek-related issues bought a full-page ad in the *Washington Post* and the political insider periodical *Roll Call* that took the Army Corps to task for alleged deficiencies at Deer Creek.[63] See Fig. 18.

[61] From an August 19, 2002 telephone interview with Michael Bohlander.
[62] Ibid.
[63] Cucamongans United for Reasonable Expansion, a 501(c)(3) nonprofit, purchased the ad in the Washington Post. The group has since expanded its scope and been renamed Citizens United for Resources and the Environment, Inc.

ADVERTISEMENT ADVERTISEMENT

GENERAL JOE BALLARD IS BLOCKING A SAFETY STUDY ON THIS DANGEROUS SITUATION –

WHY IS THE ARMY CORPS ENDANGERING OUR CHILDREN?



Debris Flow Boulders at Banyan Elementary School

ALL AMERICANS PAY WHEN FLOODING OCCURS! Please join with us in requesting Congressional Hearings into the Army Corps' cover-up of their mistakes on Deer Creek.

Senator Feinstein & Senator Boxer have repeatedly requested the Army Corps of Engineers do a safety study of the Deer Creek Dam and Debris Basin Project in Rancho Cucamonga, California. General Joe Ballard has refused and the Corps has lobbied FEMA not to conduct the safety study. Six schools and thousands of homes could be destroyed by debris flow & flooding if Deer Creek Debris Basin fails.

Californians United for Reasonable Expansion (CURE), Inc.
(213) 300 - 3550

Fig. 18. CURE Advertisement.

Exponent's study received attention in the local press. The Corps tried to refute Exponent but in the process conceded that Deer Creek debris basin cannot handle the amount of debris expected in the Corps' own estimates. In November 2000 the civilian leader of the Corps, Assistant Secretary of the Army for Civil Works Joseph Westphal, wrote a letter stating that Deer Creek debris basin does not "provide the level of protection originally authorized by Congress" and offered that the Corps will do further studies if a "local interest" would agree to fund a portion of the cost, estimated at $250,000.[64]

Later that month, Senators Feinstein and Boxer asked the state, through Resources Secretary Mary Nichols, to investigate the situation and if it found outstanding safety issues, to consider acting as the "local interest" required for a National Academy of Science study. Nichols herself wrote a letter to the Corps in November 2000 advocating McKeith's position.

Safety Set Aside

The Department of Water Resources formed a "technical review committee," reflecting the expertise of the department's scientists and engineers. The charter for the task force warned that participation in the committee was not a signal that a "flood protection deficiency currently exists" at Deer Creek.

Two months later, the state's dam safety expert, Steve Verigin, told the engineers and interested parties that it was already clear "a consensus will not be reached among the present attendees."[65] The committee simply decided to report all of the findings from the various engineers.

One reason, according to Exponent engineer Doug Hamilton, was the feeling that "no matter what we say or do, the Corps just kind of dismisses" the work of Hamilton and others outside the federal government as information driven by agendas. Further, the Corps' Joseph Evelyn maintains that streamflow records from the USGS are the only non-Corps-originated data he would use without reservation. The flip side to this "Catch 22" is USGS's Robert Meyer, who says none of the USGS stream gages on alluvial fans are trustworthy and it is useless to think such things can be estimated. Doug Hamilton and the other engineers did not know whom to trust.

Schools That Could Not Be Stopped

CGS believes a significant reason for the state's paralysis on safety concerns at Deer Creek was the $48 million Los Osos high school project in northern Rancho Cucamonga and another recently constructed school, Banyan Elementary, located several miles below Deer Creek debris basin but within sight of its flood channel. Rather than acting from an overabundance of caution, officials gave primary importance to the desire not to delay any further the new schools, which are to alleviate overcrowding in neighboring campuses. They succeeded—more than 2,400 students entered classes at Los Osos in 2002. Nearby Banyan

[64] November 3, 2000 letter from Westphal to Senators Boxer and Feinstein.
[65] From handwritten minutes to March 12, 2001 meeting of Deer Creek task force.

Elementary opened in 2001. Also located along Deer Creek is Chaffey College, which was spared during the 1969 floods because of the earthen levee—later cleaved in 1999 to make room for more home sites.

To this day, Los Osos lacks a document that every other state-funded school construction project must possess before it opens its doors. That document is an approval from the Governor's Office of Emergency Services (OES) signifying that appropriate disaster and evacuation plans are in place and are feasible. OES has twice rejected as incomplete plans that were submitted by local flood control officials. One of them was a hand-drawn map. It should be noted that the San Bernardino County Flood Control District, the agency responsible for submitting inundation maps, also used to own the land upon which Los Osos was built.

It is important not to ignore the construction-friendly political climate in the Inland Empire. Western San Bernardino County is teeming with recent arrivals. It would be quite a change in philosophy for local officials to admit publicly their concerns about flood safety while at the same time approving new housing and schools.

Documents show that Los Osos passed environmental reviews without proper inundation maps because the California Department of Education (CDE) acted on what it says was the advice of Resources Secretary Nichols. Asked if it was normal for CDE to set aside environmental concerns based on a verbal promise, CDE facilities official Jim Bush said the agency assumed the Deer Creek task force would come to a conclusion within 60 days of the January 11, 2002 meeting in Feinstein's office. After more than 100 days passed without such a conclusion, officials decided to approve the school project nonetheless. The Los Osos approval documents issued to the Chaffey Joint Union High School District make no mention of flooding or any other environmental concern at Los Osos.

Records from the California Debt Advisory Commission show that Chaffey Joint Union High School District did not particularly need the state's money to build Los Osos. In April 2002 the district authorized the sale of bonds worth tens of millions of dollars. Voters had approved the bonds in years previous; it is common for districts to "save up" bond authorizations until circumstances call for an infusion of cash. Without detailed knowledge of the school district's spending priorities, it is impossible to know if paying the entire cost of the Los Osos project has unduly strained the district's budget or rearranged funding priorities. The district hopes to receive $24 million from the state to cover half the cost of building Los Osos.[66]

The Chaffey Joint Union High School District has already had a controversy surrounding construction of Los Osos High School. District officials in mid-2000 were threatened with a lawsuit by the U.S. Fish and Wildlife Service, which alleged that endangered species habitat for the California gnatcatcher, up to 388 acres, was illegally destroyed during pre-

[66] For reasons beyond the control of local officials, state school construction money for the past year has been largely appropriated for the urgent needs of the second-largest district in the nation, the Los Angeles Unified School District. Los Osos was eligible but failed to qualify for $24 million in state reimbursement. The district can receive reimbursement for Los Osos in upcoming funding rounds at the State Allocation Board.

construction preparation of the school site. In a settlement agreement, the district agreed to buy up habitat elsewhere for permanent conservation.

What One Citizen Can Do

In real life, the activist Erin Brockovich overcame elitism in the legal arena to hold a water polluter accountable. In the movie version, actress Julia Roberts made it look easier than it really was. In Rancho Cucamonga, however, Malissa Hathaway McKeith and her family have as yet been unable to prevent the potential consequences of a flood on Deer Creek. McKeith's Alta Loma home is stuffed with dozens of boxes of documents on Deer Creek, the result of scores of records requests and independent research. McKeith and her mother joke darkly that the documents will prove most useful if people get killed by a flood on Deer Creek and their families want to sue someone.

McKeith is like a broken record on Deer Creek. While she has managed to sustain her quest for a Deer Creek safety study over the last five years by paying for expensive water experts, lawyers and lobbyists to pressure higher-up state and federal officials, at home she is often dismissed as another gadfly raving about the sky falling. In 1997 the McKeiths petitioned the Corps and FEMA to get involved after it became clear that local officials were going to allow a developer to bulldoze a portion of the earthen levee that had provided flood protection to the city for decades. The federal agencies refused, thus allowing local officials to keep McKeith at bay by casting her as a "not-in-my-backyard" litigation hound who didn't want any more development above her house.

Even though the levee was ultimately cleaved with a bulldozer in 2001, the McKeiths continued to fight. And though FEMA failed to challenge the Corps as McKeith wanted, the participation of Senators Boxer and Feinstein proved to be crucial in getting the state—through Secretary Mary Nichols of the Resources Agency—to agree to coordinate a task force on Deer Creek.

The task force (officially called the Coordinated Technical Review Committee), its members and its goals began to take shape during a multi-agency meeting held in Senator Feinstein's San Francisco offices on January 11, 2001. One of the attendees was a brigadier general, Peter Madsen, from the Corps. According to several people present that day, Gen. Madsen appeared furious at the meeting and demanded that McKeith apologize for the *Washington Post* ad slamming the Corps. "Nothing's gonna happen until she does that," Madsen reportedly growled. McKeith, participating via teleconference from Washington D.C., remained silent. Her consultant from Exponent, Doug Hamilton, broke the silence in the room by assuring the assembled officials and engineers that the group could keep its focus on technical issues.

Aides to the two senators also asked McKeith to apologize to help move the process along. One of them even drafted an apology for her. "The (Washington Post and Roll Call) ads succeeded in profoundly pissing off everyone who matters at the Corps, and I think probably poisoned an already tainted well," wrote a senior advisor to Boxer, John Hess. "This is not an 'I-told-you-so' message, but I think feelings are that strong over at the Corps. Given the

intensity of Madsen's comments to me, Malissa, I can imagine the impression he must have made on (California Resources Secretary) Mary Nichols."[67]

The aides persisted until McKeith's lawyers at the time, Latham & Watkins, outlined four years of McKeith's treatment by the Corps. There was no more talk of an apology after that, and none was proffered. Says McKeith, "the lesson I learned was to spend your money on publicists and politicians. The ad was the most effective money I spent."[68]

2004 Deer Creek Update

As *Losing Ground* went to press in early 2004, no consensus over flood control issues had been gained at Deer Creek or elsewhere in San Bernardino County. The topic, however, was looming larger in the public eye. That was the result of wildfires that blackened nearly 740,000 acres in Southern California and a deadly flash flood that killed 15 on Christmas Day 2003. The flood struck Lytle Creek and residents of Devore, just a few miles from the Deer Creek watershed. After the flash flood, residents complained that pre-flood warnings delivered by the California Geological Survey "seemed casual, and that there was no recommendation to evacuate."[69]

The state Geological Survey and the state Department of Forestry and Fire Protection concluded that 28 properties in northwestern San Bernardino County had increased risk following the wildfires. However, the state lacked authority to order evacuations and instead sent letters or verbally warned homeowners during post-fire property inspections.

Most recently, San Bernardino County sent letters to 113,000 homeowners along a 32-mile area county officials say may be subject to slides and flash floods—residents of Deer Creek included. Crews have been going door to door to warn residents verbally and offer them sand and sandbags to build stanchion walls. "I have never seen the county go to these lengths to advise people of a possible hazard before," San Bernardino spokesman David Wert told the *Los Angeles Times*. "But then, we've never faced a flood risk of this magnitude."[70]

In addition, the Federal Emergency Management Agency has for the first time issued post-wildfire "advisory maps" in Southern California showing locations where wildfires have increased the chances of being inundated by a flood. The maps, however, do not replace official FEMA maps used to calculate flood insurance rates.

These post-wildfire actions are good news but do not signal a sea change. State agencies warned of danger in Devore but lacked authority to enforce action. Federal agencies noted the significant post-wildfire danger of flooding but ordered no changes to flood maps or debris basin capacity.

---

[67] From an email from John Hess to Malissa Hathaway McKeith dated 29 November 2000.
[68] Interview with Malissa McKeith, November 22, 2002.
[69] Martin, Hugo "At-Risk Areas Brace for Rain" *Los Angeles Times* December 31, 2003.
[70] Sahagun, Louis "Flood Warning Targets Foothills," *Los Angeles Times,* January 13, 2004.

County officials, now on their public outreach campaign in high-risk zones, have failed to re-examine Deer Creek even as they struggle to secure funding for a massive new debris basin just west of Deer Creek. In nearby Cucamonga Creek's watershed, gravel pits and open space offer a measure of protection against flooding that a Deer Creek resident lacks. In the Cucamonga drainage, however, the Colonies Crossroads project (a commercial and residential mixed-use development already in early stages of construction) is scheduled to receive $10 million in bond funds from Proposition 50—the $3.4 billion water quality measure approved by voters in 2002 to protect water supplies from terrorists and boost conservation efforts and pollution control. The money will help construct a larger debris basin to protect Colonies Crossroads from flooding.

The $10 million was arranged through a budget amendment introduced by the influential Rancho Cucamonga state Senator, Jim Brulte, at the request of San Bernardino County Supervisor Paul Biane. Biane was a former business partner of one of the Colonies Crossroads developers. Colonies Crossroads also gave $10,000 to Biane's election campaign in 2002.[71] The amendment, astoundingly the only "line item" in the entire bond act, does not name Colonies Crossroads specifically. Instead, it allocates $10 million toward a Southern California water project that is in an area where the county population has increased by at least 2.4 percent in 2002, which also lies outside the service area of the Metropolitan Water District but is within one mile of an established residential and commercial development. Those parameters virtually name Colonies Crossroads because few if any other projects would meet those standards, according to officials.[72]

Because of legal disputes it is not yet clear who will pay the lion's share of debris basin upgrades protecting Colonies Crossroads. What is known is that debris basin upgrades will be completed to protect Colonies Crossroads and associated neighborhoods in the Cucamonga Creek drainage. Neighboring Deer Creek communities will have to summon more political capital to get the ball rolling on any upgrades.

Recommendations

The story of Deer Creek is more than the account of a single project. It reveals how crucial decisions about development in risky areas of California are made in virtual secrecy by public officials, elected and appointed, and by developers helped by government actions. This is a failure of process, a revelation of the absence of protection for homebuyers and for students in schools located in potentially dangerous areas such as Deer Creek.

Without an open process there is no accountability. As a result, Southern California experiences recurrent cycles of disaster, followed by politicians and journalists scrambling to find out what went wrong. The purpose of this report is to reveal a stilted, secretive process that leads to this potential danger and to propose ways in which these important decisions can be opened to public view and debate in the future—before tragedy strikes again.

[71] Martin, Hugo "Water Funds Could Aid Development," *Los Angeles Times,* September 11, 2003.
[72] Ibid.

The issue extends far beyond Deer Creek. As Mary Nichols, the state's former resources secretary, told CGS, the problems of Deer Creek apply to all areas of the state where development is occurring on alluvial fans. These areas are found not only at the foot of the San Gabriel Mountains, but in San Diego County and the Sierra foothills.

The failure, CGS's study has found, is with a process that encourages important decisions to be made without debate of experts and public scrutiny. In such a closed process, the actions of individual officials, such as Joseph Evelyn at the U.S. Army Corps of Engineers, take on undue importance.

What is needed is to reform the process for setting and enforcing safety standards; to provide a mechanism for regional decision making on what is clearly a regional issue; and to make safety concerns publicly available to all. A Rancho Cucamonga parent should not have to fly to Sacramento, as CGS staff did, to uncover a controversy over the safety of Los Osos High School.

The goal of reform is not to stop development but to make it sustainable, to assure that California's inevitable growth will take place in communities that can expand without huge public expenditures for fire and flood protection that, in the end, fail to protect from the huge natural disasters endemic to California.

Earthquakes, for example, are part of the dangers for Californians living in seismic high-risk areas. But legislation, public discussion, countless news stories (including a recent report[73] of an unpublished list of California schools especially vulnerable to earthquakes), massive campaigns urging safety measures and the memories of past disasters have created a climate in which risk can be anticipated. When aware of the danger, Californians can take steps to mitigate it.

This process should be applied to development on alluvial fans and other areas once considered too remote for residential communities or too difficult or uneconomical for the construction techniques available a few decades ago.

CGS recognizes the difficulty of enacting such legislation. Sacramento, as the historian Carey McWilliams wrote, is "one of the great commodity markets in America where an astonishing variety of interests bid for favor and preference."[74] The construction of homes, businesses, warehouses, factories, roads and schools are among the most important of these commodities. The power of lobbyists and campaign contributors associated with them is great, whether on behalf of developers, union leaders, local merchants and political leaders, or local school board members determined to build a high school. But the effort will, for the first time, force a debate over the desirability of building sustainable communities on risky ground. And, it will take place in the appropriate arena—the state capitol, requiring action from both the executive and legislative branches.

---

[73] Finnie, Chuck. "Quake study of schools shelved; Davis holds up report on vulnerable sites." *San Francisco Chronicle*, 13 November 2002.
[74] McWilliams, Carey. California: The Great Exception. 1950. Berkeley: University of California Press, 1995. p. 208.

Recommendation #1: Form Alluvial Districts

From streetlights to mosquito abatement, it is common practice in government to form special assessment districts so that the residents who enjoy the benefit of a service are also the ones paying for it. CGS sees a need, in areas that abut flood-prone mountain canyons, to create a publicly funded entity with the clear responsibility to advise local governments on flood risks. When CGS speaks to residents who live near Deer Creek, they invariably want to know if their homes are in danger. It is a hard question to answer. More than concerns over taxes or the size and scope of government, members of the public are most concerned with their individual safety. They may not want to know every scientific detail, but they definitely want to know the risks they face personally and then make a decision based on reliable information.

The prevailing view among the uninitiated is that flood control provides protection from floods, not "a level of protection" that could be exceeded at some point in the future. CGS recommends the creation of independently verified information about alluvial fans and flood risks that members of the public can access easily.

Alluvial fans are a permanent feature of California's landscape. CGS proposes that the Legislature authorize creation of "Alluvial Districts" as a way for local communities to identify specific flood risks relating to individual alluvial fans and provide informed counsel to cities and counties as they make land-use decisions in alluvial areas. The state and federal governments should contribute toward start-up costs for the districts, but local communities—through annual assessments on the owners of property located on the alluvial fan—should support the ongoing operational needs of the district.

The first question is the hardest to answer: who is on the alluvial fan and who is not? Drawing maps of alluvial fans is the first step toward the full disclosure of flooding risks. Since the precise boundary of the fan may seem capricious to individual homeowners right on the boundary, CGS recommends that all property owners living within 1000 feet of an alluvial fan be informed that their property lies near an area of historic flooding. Those living on the fan (ie., in an area where it can be proved that historic flooding has occurred) should pay an annual assessment to the Alluvial District.

Mapping such an area might prove the most contentious step and thus requires intervention from a federal agency with proven experience in mapping: the Federal Emergency Management Agency. FEMA already maps floodplains but sometimes defers to other agencies on the general dimensions. When creating alluvial fan maps, FEMA should set aside the question of flood control and concentrate on mapping the historic regime of flooding on a particular fan. As a primary benefit, the maps would simply inform interested parties where past floods have occurred, regardless of flood control projects. FEMA should begin with fans near populated areas or other areas undergoing requests for development. Near populated areas, local governments should fund a portion of the risk assessment with help from the state and federal governments. In unpopulated areas developers should pay all or most of the costs.

Assessments for an Alluvial District could be weighted depending on the distance from the mouth of the alluvial fan or the body of water. Though the precise formula is unclear, the danger increases the closer one gets to the mountains and assessments should reflect that.

It is necessary to separate the authority over land use from the authority that assesses flood risks. Local governments that depend on growth for fiscal solvency are more likely to gamble that floods will not occur—suggesting that floods are a faraway risk compared to the immediate demands of budget finance. The development community often is complicit, framing land use decisions as a duel between the "common folks" that developers claim to serve and the rights-by-proxy of small animals or native plants usually litigated by powerful homeowners or environmental groups.

An Alluvial District, led by an elected or appointed board of directors, would be responsible for determining risk and disseminating flood safety information. The district could issue nonbinding resolutions on land use projects within their boundaries. Most importantly the districts would act as a permanent public forum devoted to the unique challenges of alluvial fans.

As an alternative to forming another layer of bureaucracy, the task of holding such hearings could be required of the local county board of supervisors. Guidelines in the legislation might prevent the supervisors from ignoring their responsibilities; for example, if an alluvial district's governing board failed to find that a new development was "reasonably safe for habitation" because of flood danger, the county board of supervisors would have to address the finding formally (usually called a mitigated negative declaration) to allow that development to proceed. These declarations should be reviewable in state court.

Recommendation #2: Expand the "Sphere of Influence" Concept to Include Flood Risks

Local governments should take an interest in and a responsibility for land uses that may affect other jurisdictions. The "sphere of influence" concept has appeared mostly in courtrooms during land use controversies, such as when a local government feels its quality of life is unduly threatened by a proposed major development just outside its borders. The northern Los Angeles County city of Santa Clarita, for example, fears additional traffic and other effects from the thousands of homes proposed on Newhall Ranch land just over the border in Ventura County.

One might assume that Rancho Cucamonga wants its voice heard on Deer Creek-related issues, since the stream flows directly through the city. But the stream itself flows on a sliver of county-owned land once owned by the Army Corps of Engineers. The Corps project on Deer Creek arguably cemented Rancho Cucamonga's future; the city was incorporated at roughly the same time, 1981, during which the Corps was drawing up bids for the final stages of construction work.

Rancho Cucamonga has disengaged itself from the project that ensured its survival. The city did not bother submitting its own findings on flood safety to the task force led by the state Department of Water Resources. And yet Rancho Cucamongans will be among the first to suffer if the flood control on Deer Creek fails.

Government entities at the lowest levels in California prize their control over local land use and public safety. Yet the City of Rancho Cucamonga and the County of San Bernardino are relying on a federal agency, the U.S. Army Corps of Engineers, for facts on flood safety. The officials who have been most active in lobbying on behalf of public safety are Senators Barbara Boxer and Dianne Feinstein, not local city council members, county supervisors or local members of Congress.

The city and county apparently prefer not to hear the alarms sounded by local residents, who have had to pay consultants to conduct research that their city and county will not undertake. The Army Corps of Engineers has no monopoly over flooding expertise in Southern California. The Los Angeles County Department of Public Works, for example, oversees 115 debris basins and houses one of the most extensive repositories of flooding information in the nation.

Local government must account for all foreseeable risks that threaten its borders, not just quality-of-life issues that may or may not accompany the next super store. CGS recommends passage of a state law requiring cities and counties to conduct formal notification and comment periods when a proposed land use has the potential to affect flood safety in other jurisdictions. Each affected jurisdiction should be notified in writing of the proposed land use and allowed a period of 60 days in which to submit comments. The Southern California Association of Governments should also receive formal notification and the opportunity to comment from a regional perspective.

Recommendation #3: Convene the National Academies of Science to bring closure to the Deer Creek controversy

The local cost involved in bringing the NAS to Deer Creek is estimated at $250,000 (the Corps would make up the difference in the total cost, pegged at roughly $1 million). The State of California already spent at least that much on its 16-month task force. The Army Corps of Engineers has a standing offer to pay most of the cost of bringing the NAS to Deer Creek, but only if the state, Rancho Cucamonga or San Bernardino County agree to be a "local interest." CGS urges these three entities to sponsor a NAS study on debris flows in Southern California, despite the potential "bad news" that may follow. As the region strains to grow, there is more and more pressure to develop lands on alluvial fans. Scattershot decisions on important issues such as these may lead to even more devastating losses if the critics of Deer Creek's flood protection are even close to accurate.

Recommendation #4: Increase the disclosure standard for school construction

CGS staff flew to Sacramento several times to unearth details on the Los Osos High School project. The state Office of Public School Construction (OPSC) was unable to provide any details on the Deer Creek flooding controversy. The OPSC, which releases state funds to local school districts that are administered to individual school projects by the State Allocation Board, was unaware of any controversy. Documents from the agency show only that Los Osos was eligible for state funds. It took another Public Records Act request and a Sacramento visit to another agency, the Department of Education, to gain a clearer sense of how the Los Osos school construction project surmounted the obstacles against it. Parents seeking similar information about school construction projects should not have to retrace CGS's steps. Vital information on prospective school sites needs to be as close to the public as a public library or a Web site.

CGS suggests passage of a state law requiring individual school construction projects to have an on-site repository of documents that can be made available to administrators, teachers, other school employees and finally, to parent-teacher associations. The information needs to reach the grassroots levels, not simply executives.

San Bernardino City Councilmember Susan Longville, the appointee of the Southern California Association of Governments to the state Floodplain Management Task Force, has endorsed several of CGS's recommendations for alluvial floodplain management. Longville's comments are listed in full below:

> "As a San Bernardino City Councilwoman who [served]…on the…Floodplain Management Task Force, I cannot forget the devastation of alluvial flooding that destroyed homes in my city during the 1980 Harrison Canyon debris flood. It is incumbent upon this task force to recommend policies and procedures that will guide local land-use decisions on alluvial fans. I believe that the report to the Governor should:
>
> - Recommend criteria and mapping standards on alluvial fans that cities, counties and regulatory agencies should use to identify the most reasonable maximum flow that urban areas will face,
>
> - Recommend that general plans and local land-use decisions consider more frequent flood events, not just 100-year floodplain maps, and the cumulative impact of individual debris basins in alluvial fan corridors,
>
> - Recommend that the Governor's Office on Planning and Research incorporate these methods for evaluating safety issues on alluvial fans in the next update on general plan guidelines,
>
> - Recommend that oversight by a specific state agency should be identified to assist local government and developers with evaluating risk,

- Recommend legislation that will require property owners on alluvial fans to be informed of safety issues, and

- Recommend that (California Environmental Quality Act) guidelines be updated with language specific to alluvial fans."

2004 Legislative Update

Assemblymember John Longville, an Inland Empire Democrat, has introduced AB 2141, which would create an Alluvial Fan Task Force with an operating budget of $1 million. The bill, which will be discussed publicity for the first time in April 2004, would require the Department of Water Resources to lead inquiry into the "state of knowledge regarding alluvial fan floodplains and to prepare recommendations relating to alluvial fan floodplain management." Findings and declarations would follow.

This legislation, if it passes, could accomplish many of the goals of a National Academies of Science study. It does not affect the actions of federal agencies, but at the very least it will further knowledge and promote public safety.

Chapter II

SMOLDERING SUBSIDIES:

WHY WILDEFIRE POLICIES WORSEN LOSSES

Foreword

The State of California and Los Angeles County provide a variety of subsidies that in effect encourage home building in fire-prone forests and brush areas. Compounding this problem, small local governments are allowed to make land use decisions in fire-prone areas without due consideration of the fiscal and resource toll incurred by neighboring local governments, state and federal agencies and insurance policyholders.

This chapter focuses on residential development abutting the San Gabriel Mountains. It identifies and challenges public policy actions over the decades which have required the general taxpaying public to build up the financial and bureaucratic network that support wildfire control there. The chapter also unearths the unique mandate of the California Department of Forestry and challenges the legislative basis for statewide funding of firefighting. Finally, the chapter reports on related effects of wildfire policy: how contracts for fire service between Los Angeles County and 48 of its cities have resulted in further subsidies for San Gabriel Mountains cities, and how brush clearance laws may be contributing to habitat loss and water pollution.

In recommendations listed at the conclusion of each major section, CGS proposes reforms to bring wildfire policy into the modern age. CGS advocates these changes in recognition of the intractable reality of housing growth in areas prone to wildfires. For homeowners freely choosing to live near fire-prone areas, CGS proposes they "pay for what they get" in fire services. As a *Los Angeles Times* editorial put it, "just as urban homeowners are required to fix ruptured sewer lines that endanger public health or repair properties that become public nuisances, people who choose to live in and around wilderness areas must bear some of the associated costs."[75]

Inconsistent Federal Policy

This report concentrates on nonfederal aspects of wildfire policy, especially relating to Southern California and environs. The federal government has asserted little regulatory authority over the growing problem of private development near fireprone areas. Its main activities have been financial. Since passage of the Stafford Act in 1970, the federal

[75] December 27, 2003, excerpted from "Burned Once is Enough."

government has reimbursed local fire departments for emergency costs, helped them prepare for future emergencies, guaranteed low-interest loans for homes and businesses destroyed in large wildfires and lent a helping hand when its own interests (e.g. a national forest) are threatened.

The Federal Emergency Management Agency, better known as FEMA, allocates money from the U.S. Treasury at the discretion of the President. While FEMA is often associated with "bailouts" of homes and businesses that suffer losses during wildfires, the bailouts themselves are made necessary by local governments that allow subdivision and development in dangerous areas. FEMA only mops up the messes, real and financial, and helps locals prepare for future emergencies.

Local governments cannot easily reverse bad decisions caused by poor local decisions that allow property owners to build in risky areas. After a poorly located church camp washed away in a flood, Los Angeles County began a fight to condemn the land, battling all the way to the U.S. Supreme Court. The court ruled, however, that once a land use has been approved, a local government may not condemn that land for health and safety reasons without just compensation.[76]

In providing federal money, FEMA categorically ignores the location of some communities in areas prone to repeated wildfires. By contrast, the federal government demands a universal standard of protection in flood-prone areas,[77] or failing that, requires affected landowners to purchase flood insurance policies, the availability of which the federal government guarantees through the National Flood Insurance Program. The federal government is an activist against flood losses but does little to guard against future losses and redevelopment in fire-prone areas following major wildfires. Yet fires and floods are part of the same cycle.

Summary of Subsidies

Hidden subsidies have long supported development in fire-prone areas and today continue to bolster that development with massive firefighting agencies, insurance assigned-risk pools and sharing of losses by taxpayers located far from where wildfires strike. To be sure, an argument can be made that all society benefits when government mobilizes to fight wildfires. For example, the closure of an interstate freeway due to a wildfire affects interstate commerce and mobility. Intelligent policy, however, should not accommodate the cost of protecting dangerous home sites for a relatively small sector of the population, homeowners on the urban-wildland interface, without asking these homeowners to pay their fair share of the costs.

Subsidies supporting residential development in fire-prone areas are listed in abridged form below:

[76] First English Evangelical Lutheran Church of Glendale vs. County of Los Angeles, 482 US 304, 318 (1987).
[77] The standard for protection is a 100-year flood; no federal funds can support activity inside a zone designated as subject to inundation in the largest expected flood over a 100-year period.

- **Los Angeles County taxpayers are assessed a hidden tax.** Until 1992, taxpayers in Los Angeles County could find out the amount of money spent each year by the county fire department to prepare for and fight wildfires. Because of unpublicized actions taken since then, however, taxpayers have been assessed an un-itemized, hidden tax through a highly irregular transfer from the Los Angeles County General Fund to the fire department, now exceeding $67 million per year. The transfer is an accounting remnant from the era (1920s-1992) when the county fire department oversaw two command and control bureaucracies: one for residential and commercial functions (financed by taxpayers living inside a fire district), and one for forestry and wildfire control (financed by all county taxpayers). In 1992, county supervisors voted to consolidate all county fire department services under one bureaucracy, but they retained the two separate financing sources. This fact is not reflected in budget finance reports after 1992. The county argues that fire department funding comes only from taxpayers inside the fire district, but this assertion is provably false.

- **The state pays for wildfire-related residential home defense in fast-growing suburban unincorporated areas.** During World War II, under the threat of enemy attack on its forests, California designated wide swaths of timberland as "state responsibility areas," or SRAs. The state also appropriated funds to create a statewide firefighting force, now known as the California Department of Forestry and Fire Protection. In the decades following the war, however, the top priority of this statewide force began increasingly to focus on protection of homes, not forests. Since SRA designation falls on roughly a third of all California lands, the task of firefighting in these places has grown exponentially in cost and scope. Meantime, laws restricting residential development inside SRA lands are permissive, and attempts to recoup costs are in their infancy. A common result is that the state government is increasingly supplying firefighting resources for residential areas, even though state law restricts this activity. This was evinced in San Diego and San Bernardino counties in 2003, where state firefighters mobilized in and near SRA lands to defend homes on the wildland-urban interface.

- **Seven wildfire-prone cities which contract with Los Angeles County for fire department protection receive sophisticated service at prices well below cost.** Claremont, San Dimas, Glendora, Azusa, Bradbury, Duarte, and La Canada Flintridge, all small cities which hug the San Gabriel Mountains and the Angeles National Forest, are among the 48 "contract cities" belonging to the Consolidated Fire Protection District of the County of Los Angeles. A little-known study commissioned by Claremont officials in 1989 reported that these areas receive more in county fire department resources—stations, equipment, personnel—than the amount contributed through taxes by residents of those cities. These cities pay comparatively even less than other urban-wildland interface zones in the fire district, such as affluent new municipalities in northern Los Angeles County, the Santa Monica Mountains and the Antelope Valley. In those places, homes are newer and more fireproof, post-Proposition 13 tax rolls are fatter and a separate, special fee has been assessed since 1990 to finance fire-related infrastructure inside their own geographic area. In the San

Gabriel Mountains, however, extensive county fire infrastructure was paid for by taxpayers who do not live there.

Los Angeles County Fire Department

Without the Los Angeles County Fire Department and its force of well-trained and accomplished firefighters, home construction would not be possible in the San Gabriel Mountains foothills and other brush fire areas. The fire department's early days were spent fighting wildfires at the base of the San Gabriel Mountains, which constituted a kind of proving ground not only for firefighters but for the techniques and prevention strategies they still employ. For instance, although mountaintop fire lookouts have dwindled, other early installations are still functioning, such as mountain camps and nine fire stations spaced a couple miles apart in the foothills.

At a total cost to taxpayers now approaching $608 million per year, the 4,428-person Los Angeles County Fire Department serves more than 3.1 million people over its 2,278-square mile service area. Included in its service area are 48 cities and numerous unincorporated neighborhoods, which pay the county to provide fire protection through its 157 fire stations and numerous other facilities. (When a city joins the fire district, they are told, "you're not just getting a few fire stations, you're getting 157."[78])

However, the residents of all of Los Angeles County's 88 cities contribute a portion of their property taxes to the county fire department to fund wildfire control and prevention. Totaling more than $67 million in 2003, these property taxes are taken from Pasadena, Glendale, Los Angeles and other cities that have their own sophisticated wildfire operations, as well as from smaller cities like Compton, surrounded by urban neighborhoods and located dozens of miles from where wildfires burn. At the very least, this stretches unfairly the intent of Section 25643 of the California Government Code.[79]

The $67 million is set aside in the name of wildfire protection, but the department has authority to spend the money to accomplish other ends—paying departmental workers compensation costs or buying equipment, for example. County officials claim all county residents benefit from wildfire protection in tandem with flood control services. However, Los Angeles County's flood control district is contiguous with its entire area, while its fire district is only half of it, concentrated in the mountains ringing Los Angeles and north and east of the city itself. Two-thirds of the county's roughly 10 million residents live outside the fire district.

---

[78] Statement of Brian Jordan, former public information officer, Los Angeles County Fire Department.

[79] Section 25643 reads in part: "Except for the costs of forest, range, and watershed fire protection within state responsibility areas as defined in Part 2 (commencing with Section 4101) of Division 4 of the Public Resources Code, for which the county is not reimbursed by the state, **the taxes for the costs of county fire protection services shall be levied only on property within the county served by and benefiting from county fire protection services, or such costs shall be paid from other nonproperty tax revenues collected within the unincorporated area of the county"** [emphasis added]. As detailed later in this section, we suggest this amounts to double taxation within broad swaths of Los Angeles County serviced by municipal fire departments.

At least one Los Angeles County supervisor has commented on the seeming inequity of charging all taxpayers to extinguish fire in the mountains. In 1991, then-Third District Supervisor Ed Edelman said mingling property taxes from different sources was "legally questionable and morally wrong" to cities with their own fire departments.[80]

That countywide property taxes fund Fire Department wildfire activities is a little known fact, even among top county officials. The Los Angeles County budget and annual report do not mention it, and neither do revenue charts prepared by Fire Department officials. One of the charts is reproduced in Fig. 19 below.

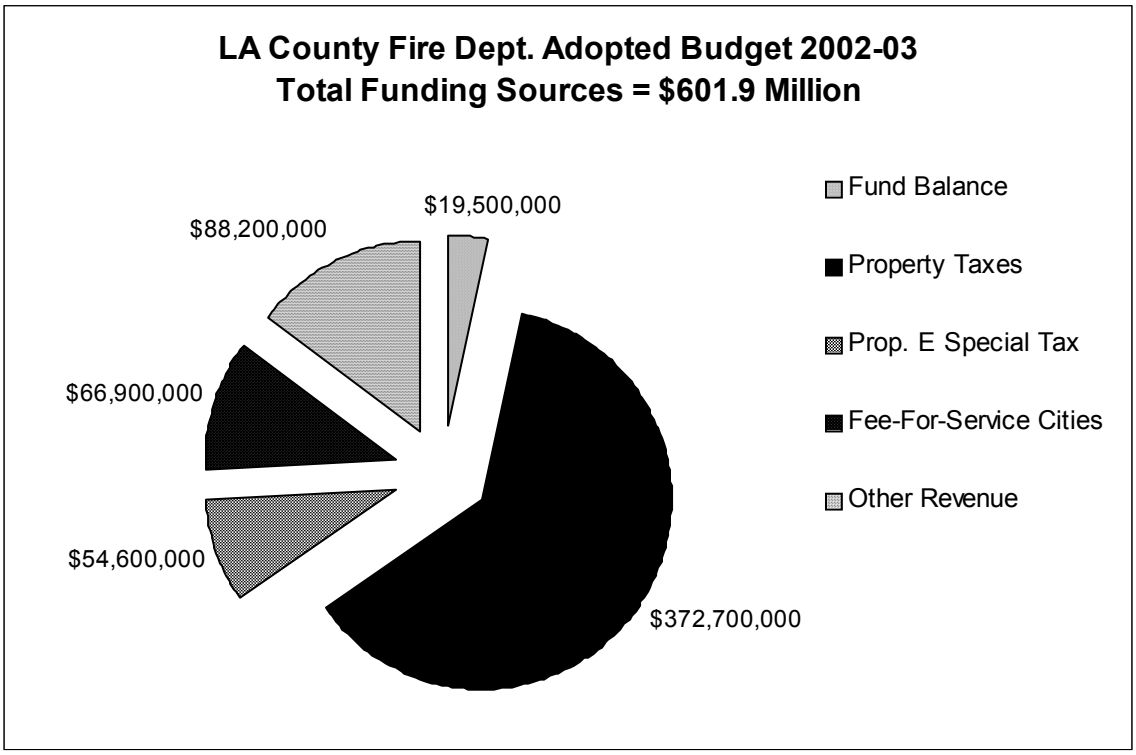


Fig. 19. Fire Department revenue sources for adopted budget, 2002-03. While the pie chart shows $372 million coming from property taxes, it does not show that these property taxes originate from different taxpayer jurisdictions. By combining them, spending for wildfires is blended with spending for basic fire services, as though their financing sources are separate. Source: Los Angeles County Fire Department.

Where's Wildfire?

Figure 18 displays funding sources for the Los Angeles County Fire Department, presented to CGS in May 2003. Their pie chart, which is reproduced above, does not delineate, nor did county officials mention, that there are three distinct pots of money that comprise the $372 million collected in property taxes. The largest, exceeding $282 million, is property taxes collected from residents living within unincorporated areas or the 48 cities belonging to the

[80] *Los Angeles Times*, July 26, 1991.

Consolidated Fire Protection District. Next biggest is $67 million in wildfire funding, collected from every Los Angeles County taxpayer. Finally, almost $20 million, also collected countywide, is allocated to the fire department for the provision of beach lifeguards.

Although the annual county budget reports lifeguard revenue and spending separately from all other Fire Department budget data, wildfire-related revenue and spending is not. Revenues collected countywide for wildfire control and prevention are co-mingled with revenue collected from the Consolidated Fire Protection District, even though the two "pots of money" are collected from two legally distinct jurisdictions of taxpayers.[81]

Without interviewing several former Los Angeles County officials, who have asked to remain anonymous, CGS would not have known to verify independently the Fire Department pie chart reproduced above. Comparing the pie chart with records from the Los Angeles County Auditor-Controller, CGS detected a $67 million shortfall. CGS asked the Fire Department and only then learned about a department which exists now only as a bookkeeping function, the Los Angeles County Forester and Fire Warden.

1992 was also the last time Los Angeles County supervisors voted to announce and authorize a specific dollar amount for wildfire spending. Since then, elected officials have allocated wildfire money automatically without a yearly vote or detailed disclosure to the public. According to the appointed Los Angeles County Auditor-Controller, J. Tyler McCauley, the special mechanism by which the Fire Department gets wildfire money is unique in the county's $16 billion budget.

To see how this happened, it is necessary to review the origin and growth of the Forester and Fire Warden.

The Early Years

For communities to take root and grow in the picturesque but fire- and flood-prone San Gabriel Mountains, they needed organized fire protection. In the founding years of the Los Angeles County Fire Department, there arose a strong, centralized firefighting bureaucracy backed by citizens groups located mostly in high-growth communities along the base of the San Gabriel Mountains.

State officials were more concerned with trees. Fire protection in California was first envisioned as a way to preserve future harvests for the timber industry. The Forest Protection Act of 1905, besides re-establishing a state Board of Forestry and endowing it with regulatory powers, enabled local governments like Los Angeles County to form fire districts and "appropriate money for the purpose of forest protection, improvement and management."[82]

[81] The "Taxpayers' Guide" issued each year by the county Auditor-Controller is the only place wildfire revenues are announced publicly, and it is published under a different cover than official budget documents. Even there, disclosure is limited to a few letters, "Fire-FFW."
[82] California Forest Protection Act of 1905, § 21.

Even though the desire to protect forestlands led to the Act, forestry and residential development were intertwined early in Southern California's history:

> The [Los Angeles County Fire] department was at first an outgrowth of attempts to solve very early problems in the forest domain, both at the state and national level….Only later did many of the features of the 'standard fire department' emerge. Linked tightly with early forestry work in Los Angeles County was the urban growth pattern that had begun to spread across the vast area. The county's political relationship with the state of California and the efforts of several prominent local citizens who dealt with the state in an influential manner also were of prime importance in the development of the department. All of these factors evolved almost simultaneously.[83]

Financing the fledgling department was up to the Los Angeles County Board of Supervisors. It supported fire operations directly from its General Fund, spending $710 in 1908 to extinguish 21 fires. (The Fire Department's current estimated budget is $608,599,000[84]) It was still a small operation in 1912, when county residents approved a $1.5 million bond issue to improve county roads and line them with shade trees. County Forester Stuart J. Flintham and his crew led the planting of trees later to grace roads such as Foothill Boulevard in the San Gabriel Valley. When some county supervisors suggested road workers could also plant trees, Flintham bristled that only his personnel had the "scientific expertise.[85]" In 1917, when the forester learned his department faced elimination through budget cuts, he persuaded burgeoning citizens' groups and businesses (notably from San Gabriel Mountains foothills communities) to fight the move before the board of supervisors. The Pasadena Shakespeare Club, the California Federations of Women's Clubs, the *Pasadena Independent*, the San Dimas Water Company and the Monrovia Chamber of Commerce appeared before the board to support forestry in general and Flintham especially. [86]

The Board of Supervisors reversed course, awarding Flintham a larger budget. Not incidentally, he took over "fire warden" duties for the county following two September 1919 conflagrations that consumed 135,000 acres in the San Gabriel Mountains.

Previously, fire control had been under the purview of the county Fish and Game Department, but the 1919 fires were widely seen as resulting from "flaws in large-fire organization and cooperation between fire agencies."[87] Thus was the state set for formation of the predecessor to the modern fire department, the Los Angeles County Department of Forester and Fire Warden.

---

[83] Boucher, David. Ride the Devil Wind, A History of the CACFFW Dept. and Fire Protection Districts. Fire Publications: Bellflower, CA: 1991, p.2.
[84] County of Los Angeles 2003-2004 Proposed Budget, p.26.
[85] Boucher, p. 11.
[86] Boucher, p.11.
[87] Dr. Frank Beall et al. Introduction to the I-Zone University of California Forest Products Laboratory, 2001. Chapt. 3, p. 4.

Modern firefighting techniques—attending to house fires, rescues, paramedic duties, hazardous waste, aerial attack, mutual aid and industrial fires—all were decades away. The seeds for subsidy, however, were firmly planted.

Small Fire Districts and County Fire Stations

Though state law had allowed formation of fire districts since 1905, volunteer fire companies were the norm in unincorporated parts of Los Angeles County until the mid 1920s.[88] Also common when wildfires struck was conscripted labor. Men plucked from their barstools by authorities (a constable was posted at the rear door of the saloon to prevent escape) were among the first firefighters documented in the history of Los Angeles County. In time, labor would be drawn from the Civilian Conservation Corps, and during World War II prison inmates began service on the fire lines, which continues to this day.[89] Between major fires, however, volunteers were largely on their own. "In spite of [Chief Flintham's] best efforts, the effectiveness of the volunteer system began to wane. This was largely due to a lack of monetary support by the communities involved, in addition to an overwhelming growth factor."[90]

State law allowed formation either of countywide fire districts or multi-county fire districts—both unacceptable to larger cities like Los Angeles that wanted exclusive local control over fire services. Los Angeles County officials solved their problem (temporarily) by securing changes in state law to allow separate fire districts within a county. Thirty-one fire districts were approved by the end of 1924. Each was funded through property tax assessments on residents of the particular district. County supervisors allocated funding to maintain central control and loaned the districts money to purchase start-up equipment. This resulted in a patchwork of self-supporting fire districts supervised by the county Forester and Fire Warden. Independent cities had their own fire departments. Unincorporated areas relied on the county Department of Forester and Fire Warden or on volunteer fire organizations.

This resulted in inequities. A self-supporting fire district in the San Gabriel Mountains foothills, such as La Crescenta, was financed only by local residents. A county Forester and Fire Warden station adjacent in La Canada Flintridge was financed by countywide taxes. Thus taxpayers in areas far from fire danger contributed to protecting homes in La Canada Flintridge, 50 years before it incorporated.

As the decades passed, fire district consolidation improved organizational efficiency, eliminated bureaucracy and broadened the tax base. By the late 1920s, the consolidated operation became the "Los Angeles County Fire Department," in charge of firefighting in the fire districts. The Forester and Fire Warden became a subsumed division inside the Fire Department. Forester and Fire Warden engines were identifiable by their green color. Their

[88] The city of Sierra Madre is the only municipality in the foothills to retain its volunteer fire department into the 21st Century. Sierra Madre relies on neighboring cities to coordinate dispatch efforts, which are sometimes derided as "foundation savers": arriving too late to save the house but in time to wet down a newly exposed foundation.
[89] The inmates' compensation for fire duty was $1 an hour in 2003.
[90] Boucher, p. 29.

operations were still financed by a separate funding stream, the county General Fund. Their job was to fight brush fires, larger forest fires and to do forestry and watershed-related work. A harbinger of the future was evident by 1930, when the green F&FW engines started being equipped with ladders for use in house fires. Defending homes and fighting wildfires were becoming one in the same.

Funding Cuts Spur Budget Consolidation

Widespread local funding cuts followed passage of Proposition 13 in 1978, which capped how much property taxes could rise from year to year. The county struggled to maintain its general fund appropriation to the Forester and Fire Warden division and had to balance Fire Department needs with those of other county departments facing budget cuts. Funding levels for fighting wildfires rose some years and fell in others, which challenged the fire department's ability to train regularly and expand services to new development. See Figure 20 below.

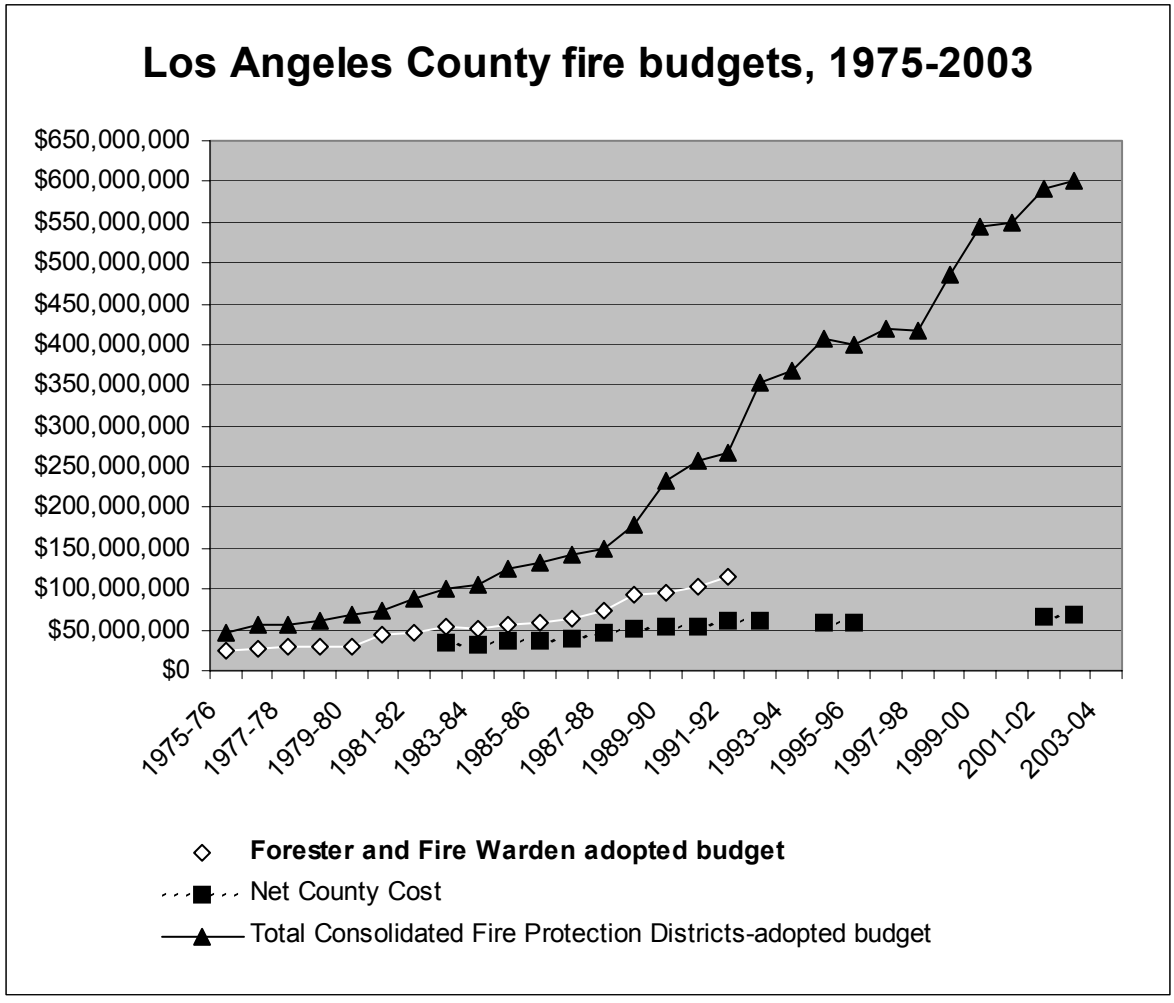


Fig. 20. Los Angeles County Fire Department budget data, 1975-2004. Source: Los Angeles County.

By 1992, the fire department was weary of funding uncertainty and had decided its internal organization was overly complex. "We didn't want to have to lobby for the funding before the board every year," Los Angeles County Fire Chief P. Michael Freeman said.[91]

County officials persuaded the supervisors to support the permanent removal of fire department funding from the county's annual budget deliberations. This unprecedented move, which the press mostly ignored, had been previously discussed before the Board of Supervisors. A year before the fire department consolidation, In the July 26, 1991 edition of the *Los Angeles Times*, reporter Richard Simon wrote, [Los Angeles County Supervisor Ed] "Edelman argued that if the county diverted property taxes collected countywide to the fire district, it would be 'legally questionable and morally wrong' to cities that have their own fire service." However, Edelman voted unanimously with the other four supervisors to authorize the property tax diversion on July 28, 1992. Commenting for this report, retired Los Angeles County firefighter and historian David Boucher wrote that consolidation "was done because the department continued to grow rapidly and it was becoming very complicated to do the math each year. It also provides for finer-tuning of money [so it can] flow to special problem areas."

How Wildfire Money Became Automatic

Under the 1992 arrangement, the Consolidated Fire Protection District receives a flat dollar amount as well as money determined through a formula for estimating average growth in property taxes. The dollar amount was originally set at the "Net County Cost" of the Forester and Fire Warden division in 1991, around $59 million. In 2003 the transfer exceeded $67 million a year.[92]

This action was significant because it permanently exempted the Fire Department from the annual give-and-take of budget deliberations. In a technical sense, the fire district gained legal responsibility for language in the County Charter, which identifies the Forester and Fire Warden as the means by which the county would control brush and wildfires. As a practical matter, the Los Angeles County Fire Department was always the bureaucracy responsible for fighting wildland fires in the county.

The major change resulting from the consolidation was the omission of ongoing Forester and Fire Warden (wildfire) funding from the Los Angeles County budget after 1992. The official documents to the consolidation state that "the funding mechanism has been designed to preserve the F&FW's current financial relationship to the General Fund."[93] This statement clearly identifies from which fund the transfer money will come. However, in editions of the Los Angeles County budget subsequent to 1992-93, the page once devoted to Forester and Fire Warden appropriations no longer appears, and money formerly separated as Forester and Fire Warden appropriations is co-mingled with property tax revenue from Consolidated Fire

[91] Interview, July 8, 2003, Los Angeles County Fire Department headquarters, Los Angeles, CA.
[92] Los Angeles County Auditor-Controller Tyler McCauley, Tax Payers' Guide 2002-03. p.41.
[93] Los Angeles County Fire Department letter to the Board of Supervisors, dated July 15, 1992. p.1.

Protection District residents. Since 1992 some $650 million has been transferred to the Fire Department without a line item in the county budget.

In defending the 1992 tax transfer, Los Angeles County Fire Chief P. Michael Freeman said that the $60 million transfer prevents the Fire Department from asking county supervisors for more money in subsequent years.[94] County officials also maintain that Forester and Fire Warden funding does not come from their General Fund. Further, the county annual report depicts its Fire Department operating with zero "net county cost."[95]

Los Angeles County does not currently make clear what its Fire Department costs to all county taxpayers. The official consolidation documents state that the county provides a "base year revenue transfer for 1993-94 which is set at the Proposed 1992-93 Forester & Fire Warden Net County Cost."[96] Yet while this statutory precedent has remained unchanged, the county currently claims its Fire Department operates with no "net county cost." In truth, this tax on all Los Angeles County taxpayers, while not new, ceased to be expressed as a cost following Fiscal Year 1992-1993.[97]

In the past, county officials have suggested that permanent General Fund transfers to the fire district were illegal. In 1991, months before he voted with other supervisors to consolidate funding sources for the fire department, Supervisor Michael D. Antonovich asked fire department staff present at the Board of Supervisors meeting why existing property tax revenues controlled by Los Angeles County could not finance fire protection. (Antonovich was opposed to the creation of a new tax, the ill-fated "benefit assessment" discussed in greater detail below, which would fall only upon residents of the fire district.)

According to the *Los Angeles Times*, "representatives of the fire department said that, by law, only 17 cents out of each property tax dollar can go to the Consolidated Fire Protection District."[98] The 17-cent figure refers to Proposition 13, which decreed that the percentage distribution of property tax allocations remain exactly what it was prior to implementation. This would seem to throw doubt on the legality of adding property taxes, such as those transferred in 1992, to the revenues of the fire district, since any addition would be an increase over the 17-cents-per-dollar cap.

As it turned out, the $60+ million transfer was only one of the major fire protection financing actions taken by Los Angeles County in the 1990s. The loss of local government property taxes following Proposition 13, new development in rural areas, rising costs and declining state payments for inmate work camps were instrumental in the county's decisions in 1990 to eliminate 70 Forester and Fire Warden jobs and establish fees on new development in high-growth areas of the county. The Consolidated Fire Protection District also struggled to

---

[94] July 8, 2003 interview with Los Angeles County Fire Chief P. Michael Freeman.
[95] County of Los Angeles Annual Report 2002-2003, p. 19.
[96] Los Angeles County Fire Department letter to the Board of Supervisors, dated July 15, 1992. p.2.
[97] Asked why budget reporting ended for the Forester and Fire Warden funding, Auditor-Controller J. Tyler McCauley wrote in an email that "FFW was annexed into the Fire Dept." and as such is no longer an annual transfer from the general fund to the Fire Department. After CGS issued in August 2003 a press release describing budget irregularities in the Fire Department, San Gabriel Valley Tribune reporter Michelle Rester told CGS that McCauley and all five Los Angeles County supervisors had declined comment for her article on the CGS press release.
[98] "Supervisors Take Step Toward New County Fire Tax," *Los Angeles Times*, June 12, 1991.

maintain service levels. As early as 1987, District officials were proposing a "benefit assessment" on property in the Consolidated Fire Protection District. Rebuffed by irate homeowners, county supervisors at first backed away from levying the assessment without a vote of the public. By July of 1991, however, the county's financial condition was markedly worse, and a split board approved the county's unilateral levy of the assessment. The average benefit assessment for a residential homeowner was $13.99 in 1991, but it would more than triple by November, 1996, when voters approved Proposition 218.

Figure 21 below, provided by the Los Angeles County Fire Department, tracks average single-family home yearly supplemental tax payments to the Consolidated Fire Protection District of Los Angeles County resulting from the county-imposed benefit assessment levied from 1991-1996 and the voter approved Proposition E levy from 1996 onward

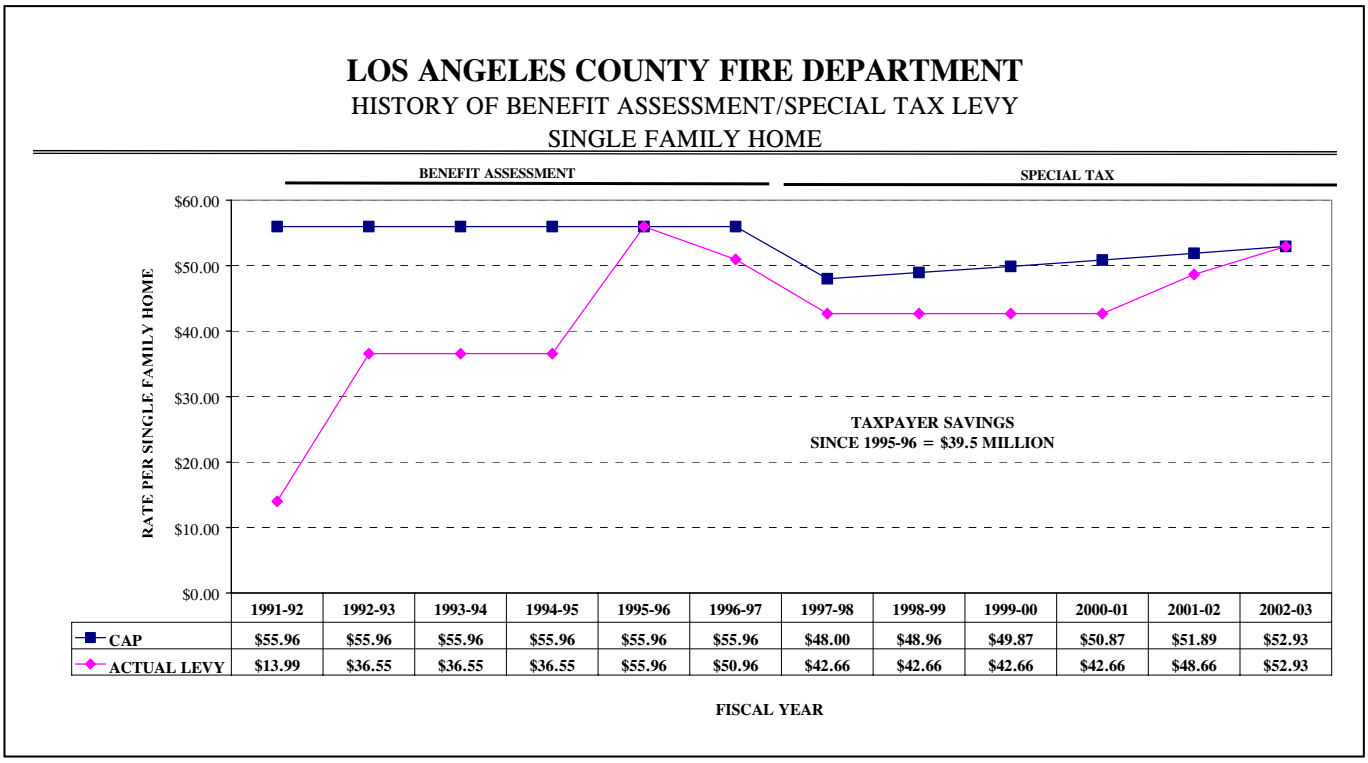


Fig. 21. 'TAXPAYER SAVINGS" refers to difference between actual taxes levied and the maximum allowable levy, the "cap," for a particular Fiscal Year.

Proposition 218 in 1996 had the effect of invalidating most local taxes imposed without a vote of the people. Challenged by Los Angeles County but upheld by the courts, Proposition 218 cost the Fire Department more than $50 million in annual revenues—none of them wildfire-related—and forced the county to hold an election in June 1997 to ask voters in the fire district whether to approve a new special tax on property to replace the lost revenues.

Proposition E in 1997 was distinct from and was in several ways the antithesis of the county's 1992 merger of fire budgets. The purpose, amount and scope of Proposition E were given a full public airing to win over historically stingy voters. An Independent Citizens Oversight Committee was specified in the proposition language to monitor the flow of Proposition E tax funds. (It now meets twice yearly.) In contrast, the county's 1992 merger of fire budgets, which set into motion automatic allocation of more than $67 million, provides to the fire department more money than Proposition E every year[99]—but without significant public oversight.

The successful campaign to pass Proposition E marked the Fire Department's entry into the political realm. Fire Chief P. Michael Freeman explained to CGS that he supported the $60 million permanent annual transfer of property taxes in 1992 because he didn't want to lobby the board every year for the money. However, the years following 1992 began a string of unprecedented public lobbying efforts from Chief Freeman and the firefighters union. According to the *Los Angeles Times,* "The firefighters union has gotten behind [Proposition E] in a big way; more than 300 firefighters have volunteered to be trained as public speakers and have stumped for the measure, according to [Chief P. Michael] Freeman. About 200 community meetings have been held, and dozens more are scheduled."[100]

How is the Money Spent?

The Los Angeles County supervisors have transferred millions to a special district that they rarely, if ever, audit. The Los Angeles County Auditor-Controller, as of November 2003, lists no audits of the Fire Department on its Web site. (Audits available online dated back only to 2001; CGS was unable to find evidence of earlier Fire Department audits.)

The auditor appears to focus most attention on services funded by federal "pass through" dollars: child protection, senior services, health care and welfare. Other than the sheriff, locally funded public safety departments rarely face audits. See Figure 22 below, which graphs publicly available (in November 2003) audits of major Los Angeles County departments. Source: Los Angeles County Web site.

[99] Proposition E revenues equal approximately $50 million per year since 1997; FFW funding has exceeded that mark every year.

[100] "Campaigns Wage Battle to Save Library, Fire Services," *Los Angeles Times,* May 26, 1997. By Times Staff Writer Josh Meyer, Page B-1. This article also notes that "an opinion by the county counsel has given Proposition E campaigners an added weapon in their fight against voter apathy: The lawyers have concluded that if it doesn't pass, the county supervisors would be prohibited from taking money from their general fund to pay for the services rendered through the fire assessment district." However, Los Angeles County, in response to a Public Records Act request, reports that the *Times* got it wrong and what the lawyers ruled out was using sales tax revenue for the fire department—not general fund revenue.

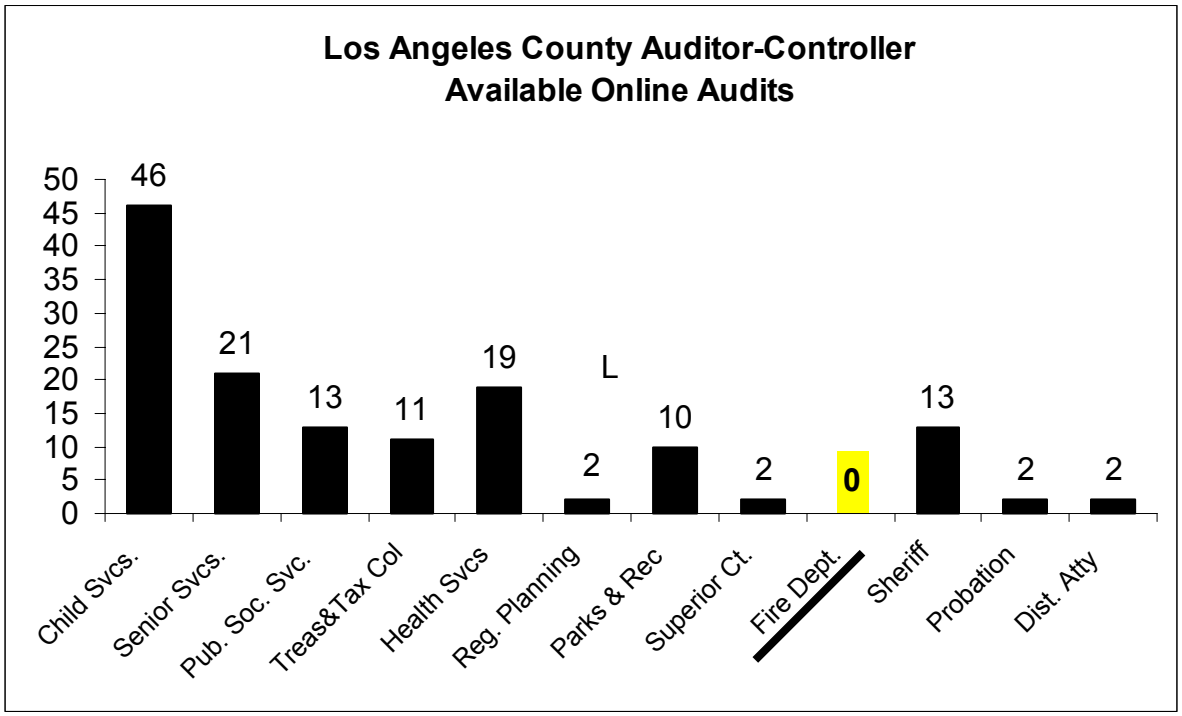


Fig. 22. Among 12 major Los Angeles County departments, only the Fire Department has zero audits.

The Fire Department does not publicize its own costs of fighting major wildfires, including incidents declared to be federal emergencies that trigger the flow of federal funds to homeowners and fire agencies. The Fire Department did send a letter responding to a California Public Records Act request from CGS, in which they report spending $7.88 million on the 1993 firestorms and receiving initial reimbursement of $7.68 million from federal and state sources. [101]

As part of the same request from CGS, the Department announced its total federal revenue for the past nine fiscal years, which is compiled in a chart below. The Department cited increased federal revenue as one reason for cutting the voter-approved Proposition E taxes in 2003 to residents in the Consolidated Fire District. Subsidy from afar is helping to cut taxes at home. Fig. 23 below lists total federal revenue to the Los Angeles County Fire Department, 1994-2003. Source: Los Angeles County Fire Department.

[101] As the result of a Federal Emergency Management Agency audit, some $771,000 of the reimbursement may be returned to the federal government. Cliff Caballero, acting deputy chief of the Los Angeles County Fire Department's administrative bureau, said that as of November, 2003, the issue has not yet been resolved.

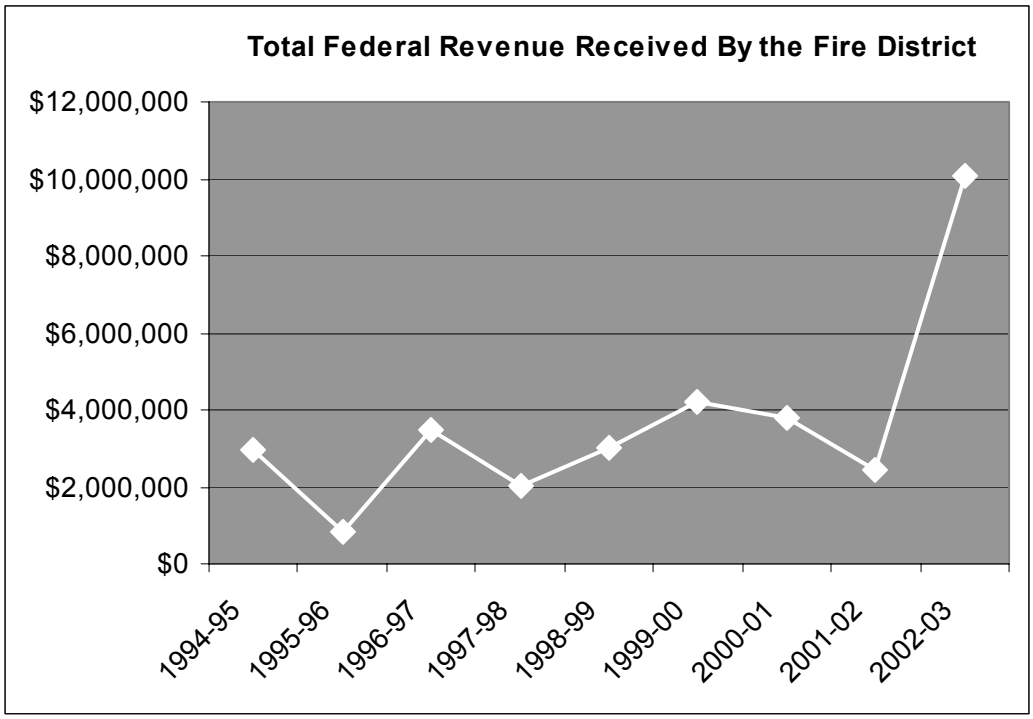


Fig. 23. Total Federal Revenue Received by the Fire District

Hot Spots

There is little information on which Los Angeles County communities are most costly for the fire department to protect, and for what reasons: rescue calls, fires at industrial sites or conflagrations threatening communities on the urban-wildland interface. It is unclear whether expensive homes in the foothills generate enough in tax revenues to "pay their own way," or which locales rely most heavily on countywide services such as helicopter water drops during brushfires or emergency air transport. The department appears not to collect data that would shed light on such questions.

In its annual statistical summaries, the department formerly listed its busiest (ranked by incident volume) squads, stations and battalions. But in 2001 and years following, this category was eliminated. The public might be better able to determine the levels of public resources hillside home dwellers use if it had statistics tracking over a period of decades where large brushfires occurred.

There is no line item in Los Angeles County's $16 billion budget which quantifies wildfire spending. A 1994 public report on the Kinneloa and Old Topanga fires noted that the fire department received $9.7 million in federal disaster advance payments, as a lump sum reimbursement for local costs incurred "above board." While a RAND Corporation study

calculated a 90 percent "save" ratio (houses burned/houses saved), the department's total expenses were never itemized for serious public review.[102]
Available statistics from 1999-2001 showed that eight central Los Angeles Basin communities (the "Gateway Cities" including Bell, Bell Gardens, Cudahy, Commerce, Huntington Park, Maywood, Pico Rivera and South Gate) generated the greatest number of fire department calls, although the "busiest station" was in the Antelope Valley city of Lancaster. [103] But since roughly two-thirds of all incidents are of the emergency medical variety, this data likely indicates areas where residents are more likely to have no health insurance, waiting for extreme symptoms before summoning authorities for aid.

Recommendations for Los Angeles County

Los Angeles County owes its citizens more complete reporting of local spending on wildland firefighting and should consider additional assessments on areas likely to be subject to wildfires.

- The county should reinstate a separate line item indicating Forester and Fire Warden funding as part of overall Fire Department budget reporting. Future budgets should duly report the more than $67 million spent from the General Fund each year, ostensibly for wildfire control. Further, each "final budget" should both report the $67 million General Fund contribution and describe its financing uses in the previous fiscal year—i.e. wildfires, air operations.

- The county should study the feasibility of a hazard tax, which would be assessed in high-risk fire areas (Very High Fire Hazard Severity Zones). An alternative is to study formation of community facility standards districts in such zones to fund fire prevention activities such as brush clearance, training and community outreach. (A hazard tax would require approval by a countywide vote of the people; a standards district would require a vote only inside the proposed district.)

- The county should create greater opportunities for citizen oversight of wildfire disbursements. A citizens commission oversees disbursement of Proposition E revenues to the fire department (about $54 million a year). Similarly, Los Angeles County owes its citizens better accounting and knowledge of the $67 million spent for wildfire protection each year. This sum should be debated and voted on in public, along with the rest of the $16 billion in the budget. By doing this, supervisors will be forced to decide whether county taxpayers should continue to subsidize fire prevention for homes on the wildland-urban interface, and if so, by how much. County-supported health clinics are closing due to lack of funding; this tradeoff should be more visible to the public. An alternative is to expand the responsibilities and membership of the Proposition E oversight committee.

[102] The official report on the Old Topanga fire estimates hazardous waste control costs due to the fire as in excess of $68 million. A follow-up report by the RAND Corporation put this figure at $68 thousand.
[103] Web site of the Los Angeles County Fire Department, lacofd.org.

State Responsibility Areas

State Responsibility Area (SRA) designation requires the sophisticated California Department of Forestry to respond directly to wildfires, or pay counties or the federal government (by "balancing of acres"[104]) to control fires there. State Responsibility Areas can exist only on state lands or within unincorporated areas of counties. But while state law provides that "it is not the state's responsibility to provide fire protection services to any building or structure located within the wildlands,"[105] in practice this occurs. See Fig. 24, a map of SRA in California. Fig. 25, a fire perimeter map, shows where wildfires have actually occurred from 1950-2002—note the similarity to Fig. 24.

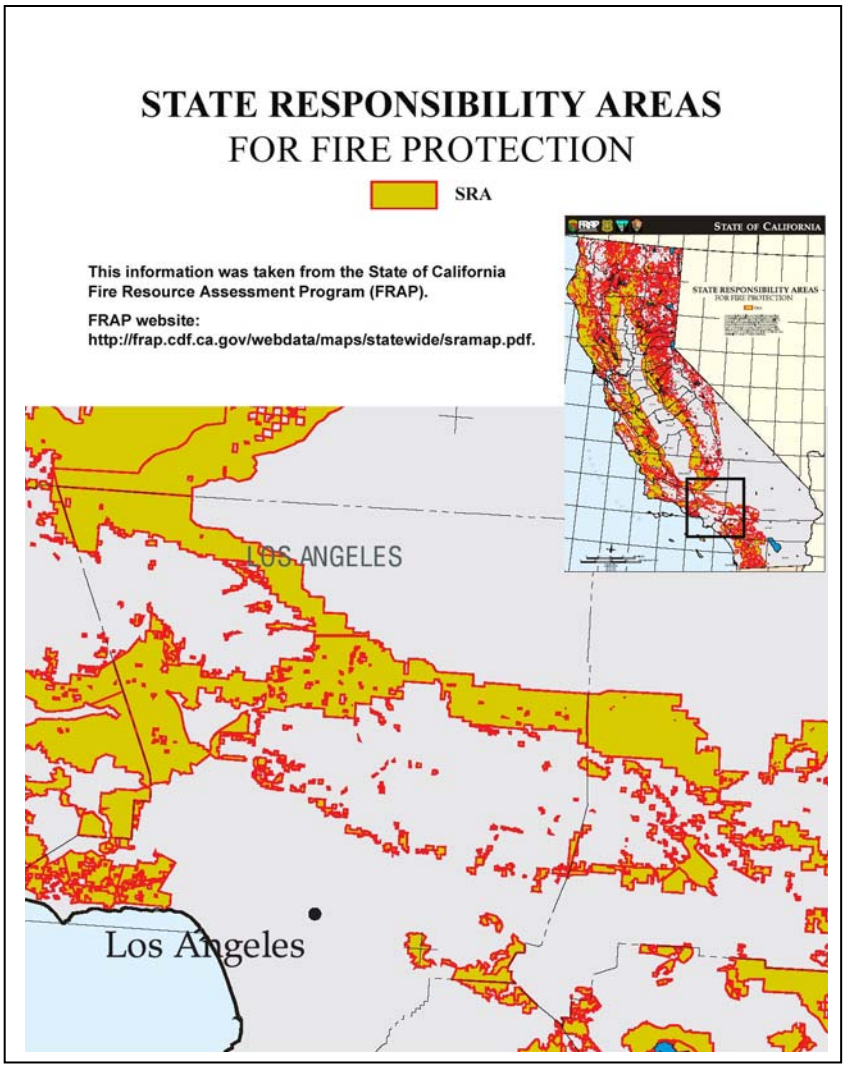


Fig. 24: State Responsibility Areas for Fire Protection, 2003. SRA lands comprise 31 million acres and contain 1.5 million privately-owned parcels.

[104] The U.S. Forest Service provides wildland fire protection to state lands and the state provides the same to federal lands depending on proximity. If there is a fire on SRA lands next to the boundary of a national forest, the U.S. Forest Service is likely to respond.

[105] California Public Resources Code 4142. The California Department of Forestry can provide fire suppression services in State Responsibility Areas if cooperative local agreements are in place. CGS was unable to assess in total the "civil collection" success rate—the bill homeowners are supposed to get when CDF provides wildfire collection—because it is enforced by six counties and CDF itself.

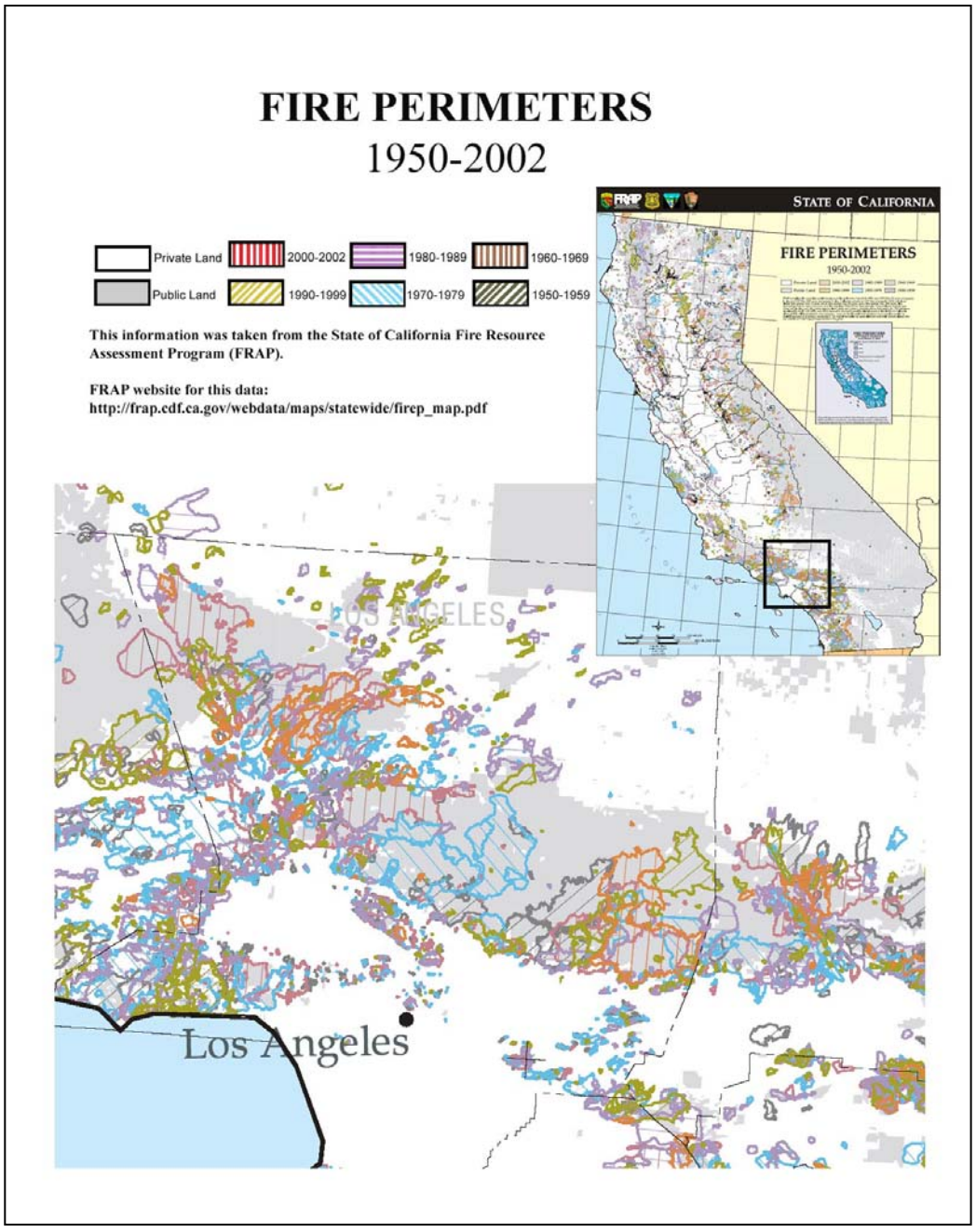


Fig. 25. Fires exceeding 10 acres in size, 1950-2002.

Building Homes in SRA

California Department of Forestry firefighters coordinated most control efforts during the epochal 2003 Southern California wildfires, partly because the combined strength of local units was inadequate to the task and partly because wildfires raged in State Responsibility

Areas.[106] Watershed protection may have been a goal, but firefighters and officials often spoke of their first priority—protecting lives[107] and property.

Eighteen months before the fires of 2003, state fire officials speaking to an Assembly subcommittee identified the benefits of state fire protection in State Responsibility Areas. Protecting lives, safety and structures topped the list, followed by watershed protection; open space; timber; range; recreation; wildlife habitats; endangered species; historic and cultural assets; coastal, wild and scenic rivers and other scenic assets; and local economic destruction.[108] The list had no numbers to indicate priority among the many benefits, but its top-to-bottom grouping underscores how the fundamental role of State Responsibility Areas has changed. The California Department of Forestry might be more suitably called the California Fire Department.

Partly in recognition of the cost of defending homes in the wildland-urban interface, the Legislature in 2003, struggling with a record budget deficit, cut roughly $52.5 million from the $671.5 million Department of Forestry budget and instructed it to recoup that cost—a fraction of its overall budget—by assessing landowners in SRA lands. A fee now under consideration is parcel-based, which could result in identical fees for parcels vastly different in size and population density. Opponents seeking to overturn the fee as unconstitutional, including the California Farm Bureau Federation, are amassing forces for a possible court battle.[109]

In a July 2003 form letter to Governor Gray Davis posted for download on the Web site of the California Fire Chiefs Association, the chiefs lament the CDF parcel assessment as "based on a mistaken believe [sic] that private property owners within SRA lands benefit from CDF protection services at the expense of the general tax-paying public. In reality, the vast majority (90%-95%) of all private property owners within SRA lands are provided fire protection services through paid, part paid/volunteer, or volunteer fire departments, paid for [by] the local taxpayers."[110]

While local efforts cannot be taken for granted, the reality is that they are too small to mount large-scale actions when big wildfires strike—they need the state to step in. Indeed, many wildfires get a chance to spread relatively unchecked because local initial attack units juggle two goals: structure (and human life) protection on the one hand, and attacking the fire perimeter directly. The division of resources can prove deadly. A San Diego rural gated subdivision received little warning from officials before one wave of the 2003 firestorm swept through, killing seven residents. Over and over, wildfires get out of hand, and reinforcements are summoned. Everyone pays.

---

[106] State Responsibility Areas burned in San Bernardino and San Diego counties. A front-page *Los Angeles Times* story of October 31, 2003 reports how training of local fire protection personnel and numbers of fire-related resources in the San Diego area lag behind other urban areas.

[107] David Boucher, a retired Los Angeles County firefighter and unofficial historian of the department, in his review of this report, noted that the importance of protecting lives "is drilled into every new recruit from day one."

[108] Reimbursement for Services, Governor's Proposed Budget, 2002-2003. California Department of Forestry and Fire Protection, Presentation to Assembly Budget Sub-Committee 3, April 3, 2002.

[109] Anderson, Craig W. "Parcel Fees to Offset CDF Budget Crisis," San Joaquin Farm Bureau Federation Web site, December 2003, http://sjfb.org.

[110] from Web site of California Fire Chiefs Association, http://calchiefs.org.

A loophole allows fairly dense development inside State Responsibility Areas. There is a limit on the allowable density of homes before SRA status is automatically lifted—leaving local governments financially responsible for fire control—but it is a huge limit. Under current regulations, as many as 750 homes can be built on only 250 acres inside an SRA and the state still maintains financial responsibility for wildfire control.[111]

The total distribution of structures within SRAs—which cover a third of California—is unknown, but there are roughly 1.5 million privately owned parcels within SRA.[112] While many of these parcels are served by large and small fire departments for everyday needs such as house fires, medical emergencies and rescues, the state staffs and pays for major wildfire responses.

Concern over homebuilding inside SRAs is hard to find. An anonymous document in the database of the University of California Forest Products Library, titled "TACTICAL PLAN," includes the observation that "thousands of homes and other structures are built in SRA[s] each year without consideration for the hazards of the setting or the survivability of the structure. These vulnerable structures detract from [the California Department of Forestry's] wildland fire protection mission." As a solution, the unnamed author suggests "[working] with the Resource Protection Committee of the Board of Forestry on a critical review of what constitutes [a] state responsibility area."[113]

Why the State Took Responsibility in the First Place

It took an event of fearsome significance to convince California legislators to swallow a hefty price tag and fund formation of a permanent statewide firefighting force. Wildfire alone could not persuade representatives of California's timber industry to set aside decades of resistance against any state control of private timberlands. Only World War II and the threat of enemy attack on timber reserves were epochal enough to precipitate the state's entry, starting in 1943, into systematized wildland fire control.[114] The war has long ended, but another risk—home building in the wildland-urban interface—has kept the state busy ever since.

C. Raymond Clar, a longtime official of the California Department of Forestry and later its historian, was influential in the creation of State Responsibility Areas. In a 1969 report produced for then-Gov. Ronald Reagan, he offered a general philosophical underpinning as to why city dwellers should be taxed to protect forests and watersheds.[115] Timber and watersheds deserved special protection, he argued, because

---

[111] Reimbursement for Services, Governor's Proposed Budget, 2002-2003. California Department of Forestry and Fire Protection, Presentation to Assembly Budget Sub-Committee 3, April 3, 2002. Text reads, "By Board [of Forestry] regulations, unless specific circumstances dictate otherwise, lands are removed from SRA when housing densities average more than 3 units per acre over an area of 250 acres."

[112] Anderson, Craig W. http://sjfb.org.

[113] University of California Forest Products Laboratory Urban-Wildland Interface database. Available at http://www.ucfpl.ucop.edu/UWI%20Documents/017.PDF p. 5.

[114] State firefighters fought fires prior to 1943, and grants were made to local firefighting agencies, but the designated State Responsibility Areas in use today arose during the War.

[115] Clar, C. Raymond. Evolution of California's Wildland Fire Protection System. Publication of the California State Board of Forestry. 1969: Sacramento, CA. p. 7.

> [H]ome owners in Chicago and San Francisco do have an interest in [rural Amador County] timber, and each helps pay for its protection. Because the State of California has a more localized interest, the man in San Francisco pays a little more for the job of fire protection. He pays that added share in state taxes. And, further, because the water and snow that falls upon the Amador [County] forests and the other uplands is actually of more material benefit to the resident of San Francisco and other lowland residents than to the landowner, and because it is of benefit to the general welfare of the Nation, both the man in San Francisco and the man in Chicago have some responsibility for the protection of general public watersheds.[116]

Clar is right that all must shoulder a burden to protect natural resources that in turn are shared by all. Clar does not assert, however, that all must share the burden of protecting homes.

Urban Counties Demand Inclusion into SRA

In Sacramento, the legislature in 1923 created a "state fire district" in six counties (Los Angeles, Orange, Santa Barbara, Kern, Ventura and Marin), essentially making them permanent subcontractors responsible for fire control inside State Interest Lands, which included both public and private parcels that existed within county borders but not within any city.[117]

Forestry-related work would soon grow in scope. In the early 1930s, the state Board of Forestry, led by its chairman S. Rexford Black, a representative of the timber industry, led completion of dozens of firebreak and lookout projects using help from labor camps, which after 1933 became part of the federal Civilian Conservation Corps or other relief organizations. State fire control efforts "had grown lustily because of the forced feeding during the Depression era."[118] The state also marked off "blocks of that portion of California which had come to be clearly accepted as timber or watershed land wherein the general public would suffer a loss in the event of wildfire."[119] These blocks—later to become State Responsibility Areas—did not include any lands inside the six contract counties formed in 1923, an omission that would later upset officials in those more urban counties.

Still, there was not significant planning for statewide fire control until 1938, when Governor Culbert L. Olson appointed a new Board of Forestry that in turn appointed a commission (headed by C. Raymond Clar) to produce a fire plan administering statewide fire control, delineating specific resources needed and describing desired areas of protection.

State coverage areas in the so-called Clar Plan were expanded to include parts of the urban contract counties, after complaints by Los Angeles County that it was being cut out of state funding. Clar wrote in 1969 that SRA designation inside urban counties "was done, but not

[116] Id. on 7.
[117] Forestry funds also flowed from the federal government. California lands were the largest single beneficiary of the federal Clarke-McNary Act of 1924. The act enabled appropriation of matching funds to states for fire- and forestry-related work on public and private lands.
[118] Id. on 21.
[119] Id. on 22.

with enthusiasm."[120] The more urban counties had higher expectations of service and associated costs than what the state already provided elsewhere, he wrote. "But who was to say what portion of [the state's allocation to urban counties] was, in good faith, actually spent to protect the wildland values and what portion to protect the industrial and suburban investments."[121]

Clar's musing is an important question in this report. It remains unanswered in large part. However, Section 4135 of the Public Resource Code states in part that the California Department of Forestry has the "power and duty to require that the money paid by the department under the contract to a county shall be expended by the county for fire prevention and suppression in that area."

War Footing Made Permanent

Clar and others had a fully developed fire plan, but the Legislature would provide no money. Reservations would soon be set aside, however, and the Clar Plan would be seized upon as a workable blueprint. In fall of 1941 a State Council of Defense was created. After the Japanese strike on Pearl Harbor, lookout stations built during the Depression were staffed to warn of the approach of enemy aircraft. Fire trucks were sent to potential bomb targets, and a 24-hour team of dispatchers was sited in Sacramento. [122]

The exploding cost of the new effort scared state officials and lawmakers. "The sum [requested by Forestry officials] was considerably more than the total war-caused needs requested by 22 other State departments."[123] Only half the request was appropriated, but in 1943 Governor Earl Warren took office and his staff began to implement the Clar Plan unilaterally by May of that year.

The Chief Deputy State Forester was sent around the State to inform the boards of supervisors that henceforth the State Division of Forestry would give such fire protection to the delineated State and privately owned timber and watershed lands as a specified number of fire crews and other facilities would provide. And also, whenever necessary the State would pay such emergency fire fighting costs as might be deemed proper by the State.[124]

[120] Id. on 28.
[121] Id. on 28.
[122] Id. on 31.
[123] Id. on 31.
[124] Id. on 33.

State of California Recommendations

- The California Department of Forestry should assess and map current numbers of homes and persons living in State Responsibility Areas, create and overlay such population density maps with jurisdictions of local fire agencies color-coded by sophistication (volunteer, volunteer-paid, part time and fulltime paid), and overlay a map of fire perimeters. In a real way, where people live in SRAs is where CDF's priorities now lie.

- The state should consider a proposal for drastic reduction in acres of State Responsibility Areas due to extension of the wildland-urban interface in the five decades following implementation of the Clar Plan.

- The state should encourage consolidation of smaller local agencies into larger units under regional, not state, control. As big as California is, and despite the success of Mutual Aid protocols, the 928 fire agencies in California would almost certainly function more efficiently if their total number were half the current amount, or fewer. Rural fire collectives have a storied history but can tend toward clubbish pride in their smallness and individuality. More importantly, their human resources live full lives outside firehouses. Greater efficiency requires consolidation, as Los Angeles, Orange and Ventura Counties have already learned, and as San Bernardino and San Diego counties perhaps will learn following the devastating 2003 firestorms.

- To greater endow local firefighting efforts, the California Department of Forestry should hold a "fire sale" of the majority of its assets to newly consolidated rural fire agencies. This will lessen the state's burden for maintaining CDF assets and increase local control. After SRA areas are redrawn to emphasize the state's remaining watershed and timber reserves, a CDF fire engine and associated personnel could come under the control of a San Bernardino, Inyo or San Diego regional fire authority, for example. The state must shunt to regional fire agencies the responsibility for fighting fires in the wildland-urban interface. After all, cities and counties are in the driver's seat allowing development of homes in SRAs. Assets controlled by the Governor's Office of Emergency Services should remain under state control.

- The state should consider a lower threshold or outright ban for development in SRAs.

- The state should tailor the proposed California Department of Forestry rural fire tax to reflect density of population and size of structure. The current parcel-based tax arbitrarily places an equal burden on families with mansions or single mobile homes.

Lakewood Plan and Contract Cities

Post World War II development increased the work of the Los Angeles County Fire Department as homes, businesses and industry exploded. At the same time, the department's financing was threatened by the possibility of several unincorporated areas becoming cities. Such incorporations shift property taxes from the county to the new city. Fire Chief Keith Klinger and other county officials offered a revolutionary alternative—the county contracting with the new cities for fire and police services. It became known nationally as the Lakewood Plan, named after the new city where it originated. The plan assured the county fire and sheriff's departments that they would grow and saved the new cities the expense of creating their own police and fire departments. Thirty-nine of the 41 cities in Los Angeles County that incorporated after 1954 selected the county to provide fire service under contract. As a result, both the fire and sheriff's departments experienced great growth.

The Lakewood Plan also fostered the proliferation of small cities able to decide land-use questions individually but dependent upon the county for services.

'Progeny of a Sweetheart Marriage'

The southeastern Los Angeles County city of Lakewood was a suburb of 70,000 persons living in newer tract homes just outside Long Beach. Lakewood became the first of the "contract cities" that would eventually total 48 in Los Angeles County alone. The Lakewood Plan permitted incorporations in a time of rapid new development, preserving revenue to the county and reducing expenses to the new cities. "It might be said that the contract cities were the progeny of a sweetheart marriage," begins the history of the California Contract Cities Association. The Harvard Law Review called it "the most significant undertaking involving transfer of service functions in the United States."[125]

As the number of contract cities grew, they felt the county was overcharging them for services. They formed the California Contract Cities Association in 1957 to lobby for their interests collectively.

Cities that provided their own services, on the other hand, felt the contract cities were getting a free ride. "These old-line cities charged that the contract cities could operate so economically only because they were being subsidized by the county out of the county general tax revenues."[126]

The association led court fights against what it called bureaucratic featherbedding and overcharging. The fire district has also been the target of statewide legislation pushed by lobbyists for the contract cities, laws written exclusively to affect only Los Angeles County fire operations (ie. by passing a statewide law affecting only those counties with more than

[125] The California Contract Cities Association Historical Review, published internally in 2001. p.6 Available at http://www.contractcities.org/html/about_us/11_21_01_historical_review_edited.html.
[126] The California Contract Cities Association Historical Review, p.2.

eight million residents: Los Angeles County).[127] Both sides have money and influence, but the California Contract Cities Association prevailed more often than not in forcing the county to justify (and sometimes lower) its costs of providing fire service to individual cities.

Claremont Fire Services Study

The charge that contract cities were being subsidized was backed up by a 1989 study. It showed how contract cities located in the Foothills of the San Gabriel Mountains received more in fire services than they paid out in property taxes. In that year, officials from Claremont hired a consulting firm to assess whether the city was receiving as much as it paid for from the Consolidated Fire Protection District. Officials were considering forming a city fire department but wanted to assess start-up and operational costs. The report, by Hughes, Heiss & Associates, documented tax revenues from all cities in the Consolidated Fire Protection District and compared them with direct and indirect costs of providing fire-related services, including paramedic squads. [128]

Fig. 26 on the next page displays costs of fire services in Foothill cities that are members of the Consolidated Fire Protection District. CGS has added, on the right-hand side, a column enumerating the difference between city property taxes and documented cost of providing fire service. Numbers within parentheses indicate negative values. Adapted from "Progress Report, Fire Services Study, City of Claremont," prepared by Hughes, Heiss & Associates. Source: City of Claremont

[127] The Gonsalves Act, first introduced in 1972 by Assemblyman Joe Gonsalves of Cerritos, directed Los Angeles County to enumerate and justify its overhead costs of contracting services. The Act resulted in millions of dollars of savings for cities, according to the California Contract Cities Association.

[128] Including revenue from redevelopment property tax increment passed through to the Consolidated Fire Protection District.

City	Staffed Units In City Limits	Direct Cost	Overhead Costs	Budget Source: Consolidated Fire Districts	Budget Source: Forester & Fire Warden	Total Cost	City Contributed Property Tax	Subsidy in $/yr
Azusa	1 Four-person Co.	$954,486	$292,678		$1,247,164	$1,247,164		
	1 Four-person Co.	$954,486	$292,678	$1,247,164		$1,247,164		
	1 Two-person Squad	$445,341	$136,557	$581,898		$581,898		
			TOTAL	$1,829,062	$1,247,164	$3,076,226	$1,768,400	($1,307,826)
Bradbury							$128,561	$128,561
Claremont	1 Four-person Co.	$954,486	$292,678		$1,247,164	$1,247,164		
	1 Four-person Co.	$954,486	$292,678	$1,247,164		$1,247,164		
	1 Four-person Assmt.	$967,146	$296,560	$1,263,706		$1,263,706		
			TOTAL	$2,510,870	$1,247,164	$3,758,034	$1,536,481	($2,221,553)
Duarte	1 Four-person Co.	$954,486	$292,678	$1,247,164		$1,247,164		
	1 Four-person Co.	$954,486	$292,678		$1,247,164	$1,247,164		
			TOTAL	$1,247,164	$1,247,164	$2,494,328	$1,208,415	($1,285,913)
Glendora	1 Four-person Co.	$954,486	$292,678		$1,247,164	$1,247,164		
	3x Three-person Cos.	$2,243,583	$687,959	$2,931,542		$2,931,542		
	1 Two-person Squad	$445,341	$136,557	$581,898		$581,898		
			TOTAL	$3,513,440	$1,247,164	$4,760,604	$2,634,667	($2,125,937)
La Canada Flintridge	1 Four-person Co.	$954,486	$292,678		$1,247,164	$1,247,164		
	2x Four-person Cos.	$1,908,972	$687,959	$2,494,328		$2,494,328		
	1 Three-person Co.	$747,861	$229,320	$977,181		$977,181		
	1 Two-person Squad	$445,341	$136,557	$581,898		$581,898		
			TOTAL	$4,053,406	$1,247,164	$5,300,570	$2,044,276	($3,256,294)
San Dimas	1 Four-person Co.	$954,486	$292,678		$1,247,164	$1,247,164		
	2x Three-person Cos,	$1,495,722	$458,639	$1,954,361		$1,954,361		
	1 Two-person Squad	$445,341	$136,557	$581,898		$581,898		
			TOTAL	$2,536,259	$1,247,164	$3,783,423	$2,168,557	($1,614,866)

The results showed cost/revenue imbalances throughout the District. The consultants concluded that Claremont was among those cities receiving more in services than it gave in tax receipts, at a rate of $2.221 million per year. In fact, each Foothill city that was a member of the Consolidated Fire Protection District—Azusa, Claremont, Duarte, Glendora, La Canada Flintridge and San Dimas—received greater value in basic fire services (ie. the cost of operating and staffing a fire station) than it paid out in taxes, with annual subsidies ranging from $1.286 million (Duarte) to $3.256 million (La Canada Flintridge).[129]

The consultants also studied cities similar to Claremont but which had their own city fire departments. The three Foothills cities included among them—Arcadia, Monrovia and La Verne—all paid more to operate their city fire departments than the amount Claremont paid to the county for fire services. Indeed, the consultants found no way that Claremont could generate enough property tax revenue to launch its own fire department. Not surprisingly, the city remains a member of the Consolidated Fire Protection District.

The subsidies for Foothill cities apparently continue. In 2003, the Foothills city of Azusa paid Los Angeles County $2.4 million for its fire services, while its independent-minded neighbor city of La Verne, of similar size and geography to Azusa but with its own fire department, paid $3.56 million. Other indirect subsidies exist as well. Sierra Madre's volunteer fire department, for example, could not itself defend against a wind-driven firestorm without drawing heavily on the resources of neighboring fire departments, as was the case in 1993 during the Kinneloa Fire. In addition, Sierra Madre lacks even the "automatic aid" agreements common to fire departments all over the nation.

Contract City Recommendations

- Los Angeles County and the Contract Cities Association should jointly perform an updated cost analysis similar to 1989 Claremont study.

- Los Angeles County should publicize yearly what each city pays the Consolidated Fire Protection District for fire control. In future contracts with Los Angeles County, county officials should negotiate a contractual contribution to an emergency wildland fire response fund. Participation in the fund can be discounted if a municipality pays more in property taxes than it receives in value for its fire services—the amount roughly equal to the operating budgets of firehouses in a particular community.

[129] The City of Bradbury abuts the Foothills and is a member of the Consolidated Fire Protection District, although it has no fire stations within its boundaries. The Hughes report compared only those assets located inside a jurisdiction.

Why Subsidies Stay Hidden

Hot air and smoke rises in a massive column over a huge wildfire. Likewise, media interest is most concentrated during firestorms, leading to a drumbeat of coverage on containment, bravery, happenstance and tragedy, albeit with few nods to what a particular fire agency reports it has spent so far. The drama of Southern California firefighting all but sweeps away consideration of whether wildfire-prone communities get a "free ride" and at what cost:

> Blinding smoke fills the air, and trees explode as the heat from the fire boils away water and sap. Breathing becomes difficult because of the hot, choking smoke. Parents hold their children close trying to comfort them. In a matter of minutes powerful Santa Ana winds have whipped the distant smoke plume into a raging firestorm. Flames leap more than 200 feet into the air, consuming everything in their path. As the firefighters stand by their hoses trying to protect these homes, a message crackles over the radio that sends a shiver through the command post: "This is Strike Team 404 at Hidden Hills Road. We are cut off. A firestorm is going to hit us. We need an air strike now. Civilians are with us at the engines." Within seconds comes the reply: "Strike team 404, Air Attack has your situation. Two fast movers and the Beast are on the way, 30 seconds out. Keep your heads down. They're going to put it right on top of you." Minutes later, out of the depths of the dense smoke, Los Angeles County's two fixed-wing Canadair CL-415 "Super Scoopers" swoop down, each unleashing its 1,622-gallon load of water into the heart of the firestorm, then disappearing back into the smoke…..As the smoke clears and the flames die down, it's clear that all of the houses are still standing—and the civilians that waited by the engines are still alive.[130]

For such performances, the Los Angeles County Fire Department deserves and receives praise for its actions. The drama attracts attention; fiscal concerns and the comparative utility of firefighting methods and prevention are ignored.

When wildfires strike, the typical metaphors rolled out to describe it all conjure up theoretically winnable military conflicts. In the Los Angeles County Fire Department's "Special Report: Firestorm 2003," the first paragraph states: "Nightly television news became a blur of yellow and orange, as camera crews chased flames whipping up canyons and barreling through neighborhoods like a solid wall of unstoppable destruction. *It was war*" [italics added].[131]

Considering the federal government's "war" on poverty, drugs and now terror, applying that term to wildfires makes metaphorical sense. It renders a complex problem too simple, however. Dramatizing as war the wholly natural cycle of wildfire—or correspondingly, focusing on reputed arsonists when accidental starts are almost as frequent—cloaks the indisputable casus belli:[132] humans living where uncontrollable wildfires burn.

---

[130] From "Aerial Workhorses," by Craig Bonholzer. *Rotor & Wing*, November 1998.
[131] From "Special Report: Firestorm 2003, On the Line and Behind the Scenes." Available at lacofd.org.
[132] In Latin, the "act or event that provokes or is used to justify war." Source: Dictionary.com.

In media and government reports, losses are almost always described in terms of lost homes and lives. On such a war footing, the media might consider it unseemly to probe public costs rather than simply report private costs of wildfire. The *Los Angeles Times* quotes a homeowner likening a future wildfire to a "coming war" and paraphrases him as saying, "the county should be prepared to outgun the conflagration."[133]

Fire is the enemy, firefighters are our troops and homeowners are innocent bystanders. The names change from event to event but the myth is constant: fires in the mountains can be controlled with enough resources.

The reality of nature is that weather conditions—wind, humidity and rain especially—affect large fires much more so than firefighters. Modernity is no more able to halt large fires in extreme wind conditions than were primitive societies. What can be done is limited to containing the flanks of a fire or removing fuel sources in its path, sometimes by lighting more fires.

No matter the region, the two common conditions leading to uncontrollable wildfires are dry, windy weather conditions and low moisture content in trees and vegetation. In Southern California, inland high pressure weather systems can lead to the infamous Santa Ana winds. Typically in the late fall before the winter rains, hot desert air, usually kept inland by onshore breezes, reverses course and blows over the coastal ranges and out to sea, taking with it great amounts of tiny sediment and any remaining moisture content in the chaparral hills and crumbling canyons. Blown dry by the "Devil Wind" and even seeping naturally explosive oil, chaparral fires can spread more quickly than firefighters' capacity to mobilize resources to "fight" it.

A modern helicopter can lay a swath of water infused with retardant that is wide enough to "paint" the average large home. But in subdivisions boasting dozens of large homes, even the skies aren't big enough for a guaranteed air defense against wildfire. Veterans of firestorms exacerbated by Santa Ana winds have witnessed advancing curtains of flaming cinders, impenetrable walls of fire laying waste to homes and firefighters escaping with their lives only because of the last-second deployment of personal fire shelters.

In short, while smaller brush fires can be isolated and extinguished, certain wind-driven fires are unstoppable, and no amount of arms buildup will turn the tide. Only by altering the environment—the result of laws requiring homeowners to cut back brush from homes and build or rebuild with fire resistant materials and methods—have authorities had success in protecting hillside communities from cyclical conflagrations such as the 1993 Kinneloa firestorm that started in the hills above Altadena. The official report following that fire stated that "environmental, situational, mechanical and man made factors" caused loss of Altadena homes in the Kinneloa Fire.[134]

---

[133] Peabody, Zanto. *Los Angeles Times*, July 22, 2002. "Topanga Fire Plan Isn't Flying."
[134] Los Angeles County Fire Department, Official Report Kinneloa Incident, 1994.

Mitigation: Fees, Brush Clearance, FireSafe Design

Another source of funding for firefighting is a per-unit fee on new development. It was adopted in 1990 by the Board of Supervisors. The fees, initiated at $0.1997 per square foot, were devised to finance fire stations and equipment incurred when extending service to new housing developments in three areas—the outlying Antelope and Santa Clarita valleys, as well as the Santa Monica Mountains. The fees took effect in unincorporated areas in these three areas because of the board action; individual cities residing in one of the three zones also had to approve the fees for them to take effect, which they all did. In Fiscal Year 2001-02, the Fire Department took in almost $13 million in developer fees.

Developer fees must be used in the area from which they are collected. Yet the fees do not apply to all high-growth areas of Los Angeles County—for example they do not apply anywhere in the San Gabriel Valley, though growth there has more than a thousand new homes since 1990.

The Fire Department in 2003 raised these developer fees 83 percent, to $0.3716 per square foot. Initial opposition from the Southern California chapter of the Building Industry Association melted after Chief Freeman met with them. "I told them the very things [developers] make profits on are the things [fire departments] have to pay for."[135] In a July 2003 interview, Chief Freeman maintained that developer fees are unnecessary in the Foothill cities of the San Gabriel Mountains because growth potential there is negligible compared to existing resources.

Existing resources, however, include the nine former Forester and Fire Warden stations bought and paid for with county General Funds. Two of the stations—Station 64 in San Dimas and Station 62 in Claremont—have been rebuilt since 1990 without a local cost share to those municipalities. The growth potential in the San Gabriel Mountain foothills communities may not be enough, in Chief Freeman's opinion, to warrant developer fees. Paradoxically, this may be because Los Angeles County taxpayers have already spent so much protecting new development there.

Less Subsidy for New Development Expected

The Los Angeles County Fire Department underwent a tectonic shift in the early 1990s. The deep cuts forced by Proposition 13 in 1978 were increasingly damaging in the decade to follow. As state budgets grew leaner, officials eventually were forced to address funding shortfalls in the Forester and Fire Warden as well as the Consolidated Fire Protection District. The 1990 decision to establish developer fees was symbolic as it "grandfathered" all development prior to 1990.

When the Fire Department secured the permanent tax transfer of wildfire funds from the General Fund in 1992, the lines between rural and wildland fire protection and purely urban fire services were forever blurred. Finally, the Board of Supervisors decision in 1991 to levy

[135] Interview with Los Angeles County Fire Chief P. Michael Freeman, May 23, 2003.

a "benefit assessment" was a tacit admission that the level of fire protection was vitally important to maintain, but also that the system had grown bigger than what post-Proposition 13 property assessments could support.

Wisdom of the Ancients

Fifteen thousand years of Indian settlement and 100 years of Spanish dominion in California shows that wildfire losses can be minimized by making structures less flammable and separating them from dense vegetation. The Achumawi Indians, former residents of the San Gabriel Mountains, buried their wooden structures almost completely in dirt and even pre-burned grasses growing on rooftops, making them extremely resistant to fire. The San Antonio Mission, also at the foot of the San Gabriels, was the first Spanish mission to fabricate clay roof tiles, which kept out most wildfires as well as flaming arrows fired by marauding Indians.[136]

These predecessor societies thrived amid constant wildfire, adapting their structures with the tools available to them through the natural world. It is likely that sooner or later an organized system against wildfires would be necessary to allow exponentially greater amounts of homes and businesses. However, the '49ers and other waves of settlers who followed the gold rush did not balance their development of firefighting resources and protocols with other measures that might have worked more efficiently, such as mandates on building design and brush clearance. Though destructive Bay Area fires in 1923 resulted in a statewide prohibition against wooden roofs on new residential development, the ban was rescinded during the postwar boom.[137] It has taken more than 150 years of California statehood to begin learning the knowledge accumulated by early Californians.

Today every new development abutting forest lands in Los Angeles County has age-old measures intended to keep wildfires away: a vegetation-reduced buffer zone, homes constructed with fire-resistant building methods and materials, and prohibitions against overly flammable landscaping. Even these homes can burn in a major firestorm, such as widespread losses in the modern Scripps Ranch development during the 2003 firestorms. Still at risk are the older neighborhoods dominated by houses with wooden roofing and uncovered venting—homes built before the advent of stricter building codes in the mid 1990s. They may be living on borrowed time, and brush clearance might not be the way to safety.

Brush Clearance's Giant Footprint

Clearing away flammable vegetation from homesites and trimming brush between homes and wildlands has become a top priority for fire departments and home insurers in the San Gabriel Mountains as well as Southern California and beyond. The theory behind brush clearance is that wildfires are increasingly less likely to ignite a home if flammable material around the home is removed down to mineral soil beforehand.

---

[136] Beall, et al. Chapter Two, p. 7.
[137] Pyne, Stephen J. "Answer to Fires Is Old as the Hills," *Los Angeles Times*, 30 October 2003.

Cutting away so much greenery comes at a price to nature and society. Associated negative effects of brush clearance upon water recharge, runoff and habitat have been asserted in scientific studies, but never by a public agency. Brushfire laws have so far not been subject to review under the California Environmental Quality Act. There is no question whether brush clearance has a positive effect; still open to debate, however, is whether brush clearance has unexamined downstream costs, and whether it is effective at the levels enforced by fire departments and the California F.A.I.R. Plan Association, an insurance consortium described in the next chapter.

Southern California wildfire agencies vary in how much brush clearance is required for homes subject to wildfire risk. The city and county of Los Angeles require a "fuel modification zone" of 200 feet. The City of La Verne has a 300-foot fuel modification zone. Homes insured through the California F.A.I.R. Plan Association can be forced to cut away brush 400 feet from their homes.

"Four hundred feet from house to flame? That's a long way," said Jack Cohen, a Montana-based fire researcher for the U.S. Forest Service. "In Southern California fires, I'm trying to think of any situation where 400 feet would be right and reasonable. You can stand and watch the fire from 400 feet. Now why do I mention that? Because humans are 100 times more sensitive to burn injury than what it takes to ignite a house."[138]

Cohen's 31 years of research into wildfire management and "structural ignition," i.e., how homes burn in wildfires, led him in 1995 to develop SIAM—the Structure Ignition Assessment Model. The widely-used model helps predict how close heat and flames must come to homes for them to ignite and combust. For example, under high heat conditions, Cohen found that shingles and other wooden building materials decompose and release volatile chemicals ignitable by even a small spark. In Southern California chaparral wildlands, such sparks, or firebrands, can be part of a "brand blizzard" that travels far past buffer zones where brush has been cleared, threatening homes and lives located far from tall flames.

"Firebrands are a significant source of ignition," Cohen said in an interview.[139] "Whether you clear 200 feet or 1,000 feet, you're still susceptible to a brand blizzard. When we studied the 1980 Panorama Fire in San Bernardino and correlated dispatch tapes with structure ignitions, we found houses that ignited a half-mile away from the fire front. Especially if a neighborhood has homes with wooden roofs, firebrand ignition can happen blocks and blocks away." (Historian David Boucher commented that in the 1978 Kanan Fire, brand blizzards ignited homes 1-2 miles away from the flame front.)

Cohen's research has led him to a philosophy partly at odds with the direction taken by local fire agencies to enact and enforce brush clearance standards. He thinks wildfire losses are prevented best by making structures less combustible. "You start with the house and work your way out," he said. "You can't put donuts around homes and be satisfied."

[138] Telephone interview with Jack Cohen, May 23, 2003.
[139] Id.

An argument for fire-resistant design methods cited by Cohen and others is the "miracle house" found unburned following the devastating Laguna fire in southern Orange County in 1993. Though wildfire flames did not actually reach the "miracle house" or neighboring structures, firebrands ignited the wooden homes but spared the "miracle house" built with FireSafe building methods.[140]

Brush clearance can be costly, is labor-intensive and harms the environment by reducing habitat,[141] promoting erosion, preventing groundwater recharge and speeding storm runoff (again impeding groundwater percolation). Still, it has proven useful and likely will stay an indispensable part of local efforts to abate wildfire losses.

Ways to Go

Wildfire expert Stephen J. Pyne, of Arizona State University, says a "hierarchy" of brush clearance might provide the greatest degree of safety in terms of fuel modification. He suggests "an immediate zone that prevents actual flame contact with the structure, an intermediate zone of brush reduced to the point that radiant heat is no longer effective [and] a broad zone that dampens the prospects for wind- and convection-carried embers. The latter I imagine as the equivalent of a fire greenbelt."[142]

Pyne adds, however, that "one can only build to a standard. It is foolish to build in the fire equivalent of a floodplain. But no house can take the direct blast of a maximum- intensity fire, any more than it can a direct hit from a tornado. Almost all studies indicate that, however well designed, a structure needs someone to swat out the stray sparks and small kindling that can burn even after the front. Our policy of mass evacuations leaves communities literally defenseless."[143]

Not everyone is on the brush clearance bandwagon. Almost all the Foothills cities abut a federal land boundary with the Angeles National Forest. Therefore, lands densest in brush are often where federal lands meet urban areas. (State and local lands near urban areas are often clogged with brush as well; removal is made more difficult by budget shortfalls and environmental regulation.)

This problem is compounded the by brush clearance minimums demanded by insurance companies. If a private home is located only 30 feet from federal land, an insurer may require 200 feet of brush clearance, but a homeowner cannot cut brush on federal land. Thus, the brush remains uncut and the insurer adds a hefty surcharge to the home's fire insurance premium. The California F.A.I.R. Plan Association, the property insurer of last resort in California wildland areas, can require up to 400 feet of brush clearance, though that standard

[140] Firesafe building construction includes techniques such as boxed eaves, screened vents, no open balconies, no wooden outbuildings, noncombustible roofing and other modifications. Fire agencies often find developers resistant to FireSafe methods because of the extra expense.
[141] Longcore, Travis. 2000 "Ecological Effects of Fuel Modification on Arthropods and Other Wildlife in an Urbanizing Wildland," Included in anthology of National Congress on Fire Ecology, Prevention, and Management Proceedings, No. 1, Tall Timbers Research Station, Tallahassee, FL.
[142] Email from Stephen Pyne, dated May 18, 2003.
[143] Id.

appears not to have any published scientific basis.[144] Further, private landowner X could be assessed a surcharge if a neighbor's home is insured by the F.A.I.R. Plan and the required amount of brush clearance around the home extends past the property line into X's parcel.

Brush clearance works. The more pertinent question may be how well brush clearance works relative to alternative methods. Sweeping legislation to enforce Firesafe construction would likely meet with resistance from developers, but other options are possible. One can imagine a system whereby a homeowner could earn credits toward brush clearance if a structure includes Firesafe building design elements. Local governments could require that structures be built no closer to public lands than what is possible given existing brush clearance guidelines. To date, no organization has sued a fire agency to require California Enviornmental Quality Act review for brush clearance standards. CEQA review and new standards could occur independently, but disasters have proven to be the best motivating factor.

Mitigation Recommendation

- The State of California should prepare an environmental impact report on brush clearance. Excessive brush clearance may be contributing to loss of habitat and groundwater recharge, as well as increasing velocities of runoff, which further retards recharge. Fire agencies in California, such as the Los Angeles County Fire Department, can contribute separate reports or contribute to an overall state report.

[144] The F.A.I.R. Plan has not published scientific reviews of its brush clearance policy.

Chapter III

EQUITABLE BUILDING?

WILDFIRE INSURANCE AND THE F.A.I.R. PLAN

The California Fair Access to Insurance Requirements (F.A.I.R.) Plan Association has a major impact on foothill development. The association is a state-created, insurance industry-sponsored property insurance "assigned risk pool" that finds policies for residential and business owners who cannot obtain insurance elsewhere.

This chapter explores whether selling these policies in brush areas encourages high-risk development in undeveloped areas. As *Los Angeles Times* Staff Writer Thomas Mulligan asked in a Nov. 12, 1993 article, "Are the vast majority of Los Angeles flatlanders—through insurance premiums and taxes that reflect the tremendous costs of fighting urban wildfires—subsidizing the few who choose to live on remote slopes choked with flash-paper chaparral?"[145]

Certainly, foothills dwellers are making potentially dangerous choices. Former Interior Secretary Bruce Babbitt urged more control over such developments, "the obvious solution to the fire hazards of the urban-wildland intermix is to maintain more separation between forests and subdivisions, thereby allowing natural fire to function without constantly alarming residents and endangering firefighters," he said. Babbitt in 1999 cited a "California writer" who wrote that "'the new density of hillside housing has transformed the battle against wildfire from a wide ranging war of maneuver into the equivalent of street fighting.'"[146]

If the F.A.I.R. Plan does not encourage development, it at least enables it. Without F.A.I.R.'s guarantee that insurance is available in high-risk hillside brush areas, developers could not be sure of the insurance that is needed for the financing of their projects. Without the F.A.I.R. Plan, development would not occur in some dangerous areas or during times when insurance companies, for a variety of reasons, decline to sell policies in hillside areas.

F.A.I.R. Plan policies also appear to have a detrimental impact on the environment. That is because the F.A.I.R. Plan requires a minimum area of 200 feet around a house to be cleared of brush, and in some cases the Plan requires 400 feet of clearance. A surcharge is levied on policies sold to homeowners who do not meet that standard, which is the same standard set

[145] Mulligan, Thomas. "Fire Fans Debate Over Who Should Foot Insurance Costs." *Los Angeles Times,* November 12, 1993. Page A-1.
[146] Babbitt, Bruce. "Making Peace with Wildland Fire." *Wildfire Magazine*: August, 1999.

by the Los Angeles County Fire Department. The surcharges range from $2,250 to $6,036, depending on the amount of excess brush.[147]

Professor Travis Longcore of UCLA, an expert on insects, said stripping away brush in such large quantities causes environmental damage in the area and downstream, as far away as the ocean. He wrote, "the denudation from fuel modification results in increased storm water flow, higher peak flows, and more suspended solids in streams that drain into the Pacific Ocean from the mountains, decreasing water quality for rare and endangered fishes and increasing erosion." He called for environmental impact reports on the impact of such brush clearing.[148]

Information is tightly guarded within the F.A.I.R. Plan Association. Created by the Legislature but run by the insurance industry, it operates with little public disclosure and many of its records are not open to the public. The law creating F.A.I.R. says, "The reports and communications of the inspection bureau, the facility, the association (both synonyms for F.A.I.R.) and the records of the governing shall not be considered public records."[149] While the elected State Insurance Commissioner has authority over the F.A.I.R. Plan Association, he has used it sporadically and whimsically. For example, before a corruption scandal drove him from office, Insurance Commissioner Chuck Quackenbush extended F.A.I.R. Plan eligibility to owners of houseboats.

Changes in insurance law that are passed by the Legislature can also be delayed at the insurance commissioner's office for years. One such change grew out of F.A.I.R.'s inequitable system of awarding financial incentives to insurance companies if they insure homes at full market rates in areas prone to brush fires. The same incentives were not extended to companies doing market-rate business in urban areas designated by F.A.I.R.—a far cry from the Plan's original intent to help urban communities rebuild. Smaller insurers whose niche is inner-city markets complained that they should receive the same incentives as the often larger companies that insure homes on the hillsides. In 1992 the Legislature and then-Governor Pete Wilson responded by decreeing financial incentives for market-rate policies written anywhere in F.A.I.R.'s coverage area. However, it was another seven years before Commissioner Quackenbush implemented the law. Thus, from 1968 through 1999, insurers had financial incentives to do business in brushfire areas but not in the inner-city. F.A.I.R. officials say three-quarters of all policies issued through the plan cover inner-city areas.

The current Insurance Commissioner, John Garamendi, said the F.A.I.R. Plan does not promote or encourage development of brushfire areas, but is "part of the enabling system."[150] He said the F.A.I.R. Plan makes the most sense for smaller developments with a handful of

[147] *Los Angeles Times*, Feb. 22, 1999.
[148] Longcore, Travis. 2000. "Ecological Effects of Fuel Modification on Arthropods and Other Wildlife in an Urbanizing Wildland," included in anthology of National Congress on Fire Ecology, Prevention, and Management Proceedings, No. 1, Tall Timbers Research Station, Tallahassee, FL.
[149] CA Insurance Code, Section 10097.
[150] Telephone interview with John Garamendi, Nov. 20, 2003.

homes and less sense for tracts with hundreds of houses. "F.A.I.R. is not the driver of development, but it is part of the enabling system."[151]

How F.A.I.R. Plans Work

F.A.I.R.—an acronym for Fair Access to Insurance Requirements—is a fund run by the insurance industry to find property insurance for home and business owners in hard-to-insure areas such as riot prone sections of the inner city, brush fire hillside areas and the beachfront. It has headquarters in the Equitable Building on Wilshire Boulevard in Mid-City Los Angeles.

Nationally, such efforts began after the 1960s urban riots when insurance companies hesitated to write more policies in inner city areas because of the devastating losses they had sustained. As a result, when Congress passed the Housing and Urban Development Act in 1968, the measure made federal riot reinsurance available to states that set up F.A.I.R. Plans.

Reinsurance is when an insurance company insures itself against the risks it is taking in issuing a higher risk policy. In this case, the federal government would insure the policies issued by private companies in the F.A.I.R. states.[152] Private companies also sell reinsurance.

F.A.I.R. plans exist in 28 other states and the District of Columbia. All insurance firms doing business in California must participate. When a F.A.I.R. plan loses money, the insurance company members are assessed according to their share of the market. Losses are then passed on to the F.A.I.R. policyholders and, in some states, to policy holders outside F.A.I.R..[153] In 1994, for example, the California F.A.I.R. Plan assessed its member companies $150 million for losses from Southern California brush fires and $80 million from Northridge earthquake losses.[154] The plan lost almost $30 million from the 1992 Los Angeles riot.[155]

The California F.A.I.R. Plan began three years before the national effort. In August 1965, Los Angeles was shaken by the Watts Riot, six days of violence that cost lives and tens of millions in property damage. Besides the immediate loss of life and damage, both physical and psychic to the city, the riot inflicted a long-term blow to business in Watts and surrounding neighborhoods. Insurance was an immediate symptom. Fourteen per cent of the merchants questioned in a survey reported their policies had been cancelled, and 44 per cent said they had trouble finding insurance.

Business owners complained. The insurance commissioner formed a committee of insurance industry members who came up with a plan to provide insurance to businesses denied access to the normal market. They formed a pool, run through a company, the United States Liability Insurance Co., which issued the policies. This company was backed by 110

[151] Telephone interview with John Garamendi, Nov. 20, 2003.
[152] The National Association of Insurance Commissioners' Study 1994.
[153] Insurance Issues Update June 2002.
[154] Business Insurance, Crain Communications, Jan. 3, 1994.
[155] A.M. Best Company Bestwire January 14, 1994.

insurance companies that did business in the Watts area. The liability of each company was determined by its share of the California market.

Three years after the riot, affluent residents, living in the hills and mountains miles from South Central Los Angeles, found that they needed the same sort of assistance. Hillside fire insurance policies began to be cancelled after a series of brush fires, most notably the $25 million Bel Air Brentwood fire in 1961. Pressure for a rescue became intense early in 1968. Many of the 75,000 Southern California brush area home owners found they were unable to purchase fire insurance at any price. Then, insurance companies cancelled the policies of 2,300 homeowners.

The wave of cancellations occurred just as the Legislature was considering a revision of the F.A.I.R. Plan, giving the homeowners, many of them with strong political connections and clout, an opportune moment to ask the lawmakers for help. The Legislature was considering bills in 1968 to bring California's F.A.I.R. Plan into conformity with the new federal F.A.I.R. plan law. Then-Governor Reagan's finance director, Caspar Weinberger, opposed the main measure, AB 1577, because it would have required the state funds to contribute to a federal reinsurance plan. Chairman Bob Moretti of the Assembly Finance and Insurance Committee took advantage of the political clout of mountain homeowners, who wanted the benefits of F.A.I.R., and merged their protection plan with the inner city provisions. As a result, AB 1577 protected both inner city business and homeowners and those in hillside brush areas. After the bill became law, Moretti said, "we have been trying to get something to cover the curfew area for a long time…We used this bill (AB 1577) as a vehicle because people who this bill I expect are more influential than [other] people who needed this bill. We used this as a method to put both into law."[156]

The law required all "admitted fire insurers" to join an Insurance Placement Facility and Reinsurance Association. The facility would be set up by insurance companies, and it created a program for "the equitable apportionment among insurers of basic property insurance which may be afforded persons who are unable to obtain such insurance through the normal market."[157] Insurance companies backed the plan, a reversal of an earlier stand. Early in the 1960s, the insurance industry opposed such an assigned risk program, contending insurance companies could provide insurance to anyone who wanted it. But by the late 60s, the situation had changed. "It is just that this area is growing so fast and dwellings are being built more and more and more in these brush fire areas and we continue to have these losses," W.F. Williams of the Pacific Fire Rating Bureau told the Assembly subcommittee. "We just haven't been able to keep up with them."[158] The bureau inspects buildings to determine whether they are eligible for an insurance policy and sends out inspectors to examine the property of each applicant.

[156] Hearings of Subcommittee on Brush Fire Insurance of Assembly Committee on Finance and Insurance, September 26, 27 1968 Santa Monica, California, p. 130.
[157] Statement of Chairman Paul Priolo Transcript of Assembly Finance and Insurance Brush Fire hearings 1968.
[158] Hearings of Subcommittee on Brush Fire Insurance of Assembly Committee on Finance and Insurance, September 26, 27 1968 Santa Monica, California. p. 34.

F.A.I.R.'s Impact on Development

The numbers indicate that the California F.A.I.R. Plan Association is not yet used widely in brushfire areas. They show F.A.I.R. as primarily an urban-inner city operation, a fact which currently diminishes its importance in the hillside development picture. However, in a November 2003 telephone interview, Insurance Commissioner Garamendi said widespread losses from the 2003 Southern California wildfires could cause more policies to be brokered through F.A.I.R. in the future.

As of April 1, 2003, F.A.I.R. has sold 191,274 residential insurance policies, the overwhelming majority of them in the urban core. A breakdown from F.A.I.R. shows:

- 158,643 urban-inner city residential;
- 11,262 urban inner-city commercial.
- 19,964 brush area residential; and
- 276 brush area commercial brush.

Most of the brush area policies have been sold in the Santa Monica Mountains, according to F.A.I.R. spokesman Mike Harris. He said about 12% have been purchased by San Gabriel Mountain foothill area homeowners. He believes this is because private insurance is easier to purchase in the San Gabriel Mountain area.

Without F.A.I.R., developers, including those in the San Gabriel Mountains, would in some cases be unable to obtain financing for multi-home projects. That was made clear during 1968 legislative hearings. Whitney Reeve of Malibu testified in his capacity as president of the Topanga-Las Virgenes Soil Conservation District, resource director of the County Soil Conservation District and a director of the Metropolitan Water District, representing the Las Virgenes Municipal Water District, all agencies favoring development in the Santa Monica Mountains. He said without F.A.I.R., such development would halt. "People cannot finance building without a dependable insurance industry," he said. "Neither can they afford to pay a disproportionate portion of the overall cost for insurance."[159]

Former State Insurance Commissioner Harry Low, a retired appellate court justice, said that F.A.I.R. as an insurer of last resort is important to developers because they need fire insurance to obtain the loans to build. "I think the impact is slight but I think it is there." Most hillside residents, he said, "could find some kind of insurance."[160] By contrast, Brian Perkins, staff director of the State Senate Insurance Committee said he does not believe that F.A.I.R. spurs hillside development.[161]

[159] Hearings of Subcommittee on Brush Fire Insurance of Assembly Committee on Finance and Insurance, September 26, 27 1968 Santa Monica, California. p. 109-110.
[160] Telephone interview with Harry Low, June 17, 2003.
[161] Telephone interview with Brian Perkins, June 23, 2003.

Does F.A.I.R. Force Flatlanders to Subsidize Hillsiders?

F.A.I.R., in a sense, amounts to a subsidy. In the years that it has run a deficit, insurance company members make it up and pass along the costs to their policy holders. There are strong indications that without F.A.I.R., brush fire area dwellers would be paying much more for their insurance.

On November 12, 1993, Thomas Mulligan reported in the *Los Angeles Times* that the F.A.I.R. rates seem somewhat low considering the danger. At that time, F.A.I.R. covered 26,000 homes in the Santa Monica and San Gabriel mountains with an average coverage amount of $318,000 per home. The yearly average premium was $715. A comparable policy for a house on Melrose Avenue right next to a fire station would cost about $600. Sheldon Richman, an analyst at the libertarian Cato Institute in Washington, said he believes F.A.I.R. is a subsidy because if there were no such coverage available, private insurance would be much more expensive.[162]

F.A.I.R. Plan Recommendations

- The state should require publication of the location and value of all policies subsidized through the Association.

- The state should require California Environmental Quality Act review of Association guidelines regarding brush clearance. As a quasi-public entity, the Association has not been forced to test whether its policies harm the environment, even if the harm is negligible compared to the fire prevention benefits bestowed by brush clearance. The state should consider new ways of effecting the goals of the current brush clearance policy, including allowing a mixture of remedies (brush clearance, Firesafe exterior building design, fire-resistant interior building design and material, etc.) rather than relying on brush control alone. Better policy will decrease losses, and accordingly, decrease taxpayer subsidies for F.A.I.R. Plan policyholders.

- The state should propose additional incentives for wildfire readiness and prevention. F.A.I.R. policies allow deductions in fees if brush clearance regulations are enforced. This simple carrot is not enough. Financial incentives for FireSafe design standards and specified wildland fire preventative measures should be expanded outside of the F.A.I.R. Plan to ordinary homeowner's policies. Homeowners should be rewarded for taking time-consuming and costly measures to protect their homes from wildland fire. This, too, would decrease overall fire losses, further lessening the burden on other homeowners.

[162] Telephone interview with Sheldon Richman, July 10, 2003.

Chapter IV

CHECKERBOAD GOVERNANCE:

THE FOOTHILL COMMUNITIES

The Problem: Fragmented Government

From the first days of the last century, California's local government agencies have been invested with great power under a concept known as home rule. Based on the principle that those closest to the people govern best, home rule grants wide authority to cities, counties and a variety of special districts to perform tasks ranging from treating sewage to providing public transportation.

This has resulted in government that is responsive to local concerns, necessary in a state as large and diverse as California. But it has also resulted in fragmented government, with cities, counties and other levels of government pursuing conflicted goals. "California is a confederation of communities," said Mark Pisano, executive director of the Southern California Association of Governments, which prepares plans for transportation, growth management and other regional concerns for the area covering Los Angeles, Orange, San Bernardino, Riverside, Ventura and Imperial Counties.[163]

Home rule has its strong defenders, including the League of California Cities, which has successfully opposed every attempt in the legislature to weaken it. "The system works. It is cumbersome but it works," said Larry Calemine, executive officer of the Los Angeles Local Agencies Formation Commission, which must approve formation of new cities, annexations and other changes in local government boundaries.[164]

But decisions of city officials, made as though their municipalities were alone in the world, have widespread and often adverse impacts throughout a region. This study concentrates on the San Gabriel Valley in the eastern portion of Los Angeles County. However, the issues raised in the valley are endemic to suburban and urban California. As the Public Policy Institute of California put it, "Political authority in California is divided among thousands of jurisdictions: A typical household may find itself simultaneously governed by a county, a city, a school district and numerous special districts that levy assessments or charge fees to provide services or build community facilities."[165]

---

[163] Interview with Mark Pisano, June 10, 2003.
[164] Interview with Larry Calemine, July 7, 2003.
[165] *From Home Rule to Fiscal Rule: Taking a measure of Local Government Finance in California* edited by David W. Lyon, PPIC 2000.

Scholar Stephanie Pincetl pinpointed the extent of the fragmentation by examining the membership of the Southern California Association of Governments. She found that the membership includes 184 cities, six counties and more than 900 special districts.

As a result, she said, "Home rule and local decisions over local land use create a situation where there is no mechanism for regional cooperation and coordination, no forum for public discussion about how and where growth ought to occur. Each jurisdiction treats growth as its own, none takes into account the cumulative effects of hundreds of small decisions."[166]

Examination of records and interviews with public officials reveal many examples of how local decisions impact areas far from the city halls where they are made. They impact safety from fire and flood, water quality, environmental quality, protection of native species and availability of recreation.

The fires that raged through the foothills and mountains of San Bernardino, San Diego and Los Angeles counties in October 2003, destroying hundreds of suburban homes in the foothills, point up the danger of housing developments in areas that have been approved by cities without regard to their impact on an entire region. The storm flooding that followed the fire showed, authorities said, regional impact of local development that covers ground that once absorbed runoff water.

This report is, of course, not the first to recognize the problem. For the past 40 years, political leaders and scholars have been trying to find a way to preserve home rule while creating government structures to oversee economic and population growth in an urban area characterized by "sprawl." Governors and legislators have tackled the issue without success. In the meantime, population growth has exploded. Once, the conventional answer was to just let California grow. But as residential subdivisions have crept into forest and farm lands, the regional impact of such growth has become clear from the foothills of the Sierra Nevada to the suburbs of San Diego, from the San Francisco Bay Area to agricultural land of the Central Valley.

As USC's Southern California Studies Center put it in its 2002 report, *After Sprawl: Action Plans for Metropolitan Los Angeles,* "As existing areas become denser, we will no longer rely on our traditional assumptions about how we use land, transportation facilities and the other raw material that makes up the hardware of urban life."[167]

Concern has been expressed from the grassroots up to the office of Governor Arnold Schwartzenegger. Even before taking office, he proposed a plan to limit uncontrolled sprawl by offering incentives for development in urban areas and removing barriers that slow redevelopment inside of cities. The Los Angeles County Department of Public Works has undertaken studies on the local and regional impact of development on water that runs off from rainstorms. "We know in general…this type of development has at least a physical

[166] Pincetl, Stephanie. *Living On the Edge: Bringing Nature Into the City,* 2000. At the time, Pincetl was associate professor of geography, coordinator of the Sustainable Cities Program, University of Southern California.
[167] After Sprawl: Action Plans for Metropolitan Los Angeles Southern California Studies Center, University of Southern California. 2003.

impact," said Bill DePoto, watershed manager for the Public Works Department. "What we are trying to do is quantify those impacts."[168]

Consequences of Home Rule in Action

There is no better example of this than the San Gabriel Valley and foothills, divided among 30 cities and at least 15 special districts with jurisdiction over transportation, air quality, waste management, water quality and water supply. Such a fragmented system of government has a powerful regional impact. And what is happening in the San Gabriel Mountain foothills probably will occur in other areas of the state where wilderness meets burgeoning residential development: the Sierra Nevada foothills, central coastal ranges, Inland Empire and San Diego County.

In the San Gabriel Valley, the impacts include:

- Continued construction of homes in hillside areas near the Angeles National Forest dwellings that are subject to the region's periodic fierce fires and floods;

- Storm water runoff, with possible pollution, from land covered with homes, asphalt and concrete, reducing natural water absorption and increasing the amount and speed of runoff, endangering those downstream;

- Damage or elimination of native species of wildlife and fauna;

- Intense competition between cities for residential developments to attract affluent taxpayers; and

- Regional land issues shaped by alternately intense and lackadaisical local politics.

At the same time, the cities are also competing for retail developments that will increase sales tax revenue, the main source of municipal income since the passage of Proposition 13, which limited the property tax.

An Example: Gentrifying Azusa

Azusa is one of the poorest of the San Gabriel Mountains foothills communities, and it sees development as a route to greater prosperity—but not just any kind of development. City voters voted down the proposed 1,600-home Rosedale subdivision in 1998. "In City Council, there is a lot of discussion about the preservation of open space," said Assistant City Manager Robert Person. "But for the most part, approvals have been for development."[169] In May 2004, city voters will consider a downsized version of the Rosedale development, calling for some 1,250 homes on the former site of the Monrovia Nursery, along with retail and 150 hillside acres donated to the city for open space. The project has been controversial

[168] Interview with Bill DePoto, June 26, 2003.
[169] Interview with Robert Person, October 20, 2003.

from the start, but City Manager Rick Cole, a believer in the "new urbanism" idea of mixed use, worked hard to build community support. The city held five town meetings on Saturdays to discuss projects, including the Monrovia Nursery. The city hired facilitators and translators and even provided child care.

Construction of another project, the 330-home Mountain Cove development, with its $400,000-plus homes, is nearly complete. Its physical location is unusual. It is surrounded on three sides by thousand-foot rock faces, with a trickling stream flowing along one side. This is where the San Gabriel River enters the Los Angeles Basin, but five dams built along its 8-mile run to the sea have forever altered the river.

Mountain Cove "is sitting in the middle of a flood plain," conceded Persons, who acknowledged that the last flood there was in 1938, four years after completion of Morris Dam, just above the present-day location of Mountain Cove. (Another upstream dam above Morris, the upper San Gabriel River dam #1, was completed later in 1938.)[170] More than half the homes are on lots surveyed as above the floodplain, but the rest were inside the 100-year flood zone map. In response, the developer moved in tons of dirt to build up the walls of the San Gabriel River, and now all the homes are considered officially above the floodplain, if only by inches.

Azusa's neighbor to the north, the United States Forest Service (USFS), asked the City Council to reduce the quantity of homes allowable at Mountain Cove before the city began the final approval process for the development. "The Forest Service does not have jurisdiction over the project site, but as a natural resource manager of adjacent property, I'm concerned about the density of the proposed development," said Raine Fulton, who was the USFS district ranger for the San Gabriel River. "We prefer development of much lesser density."[171] The city did not accede to his wishes.

Dave Carr, USFS fire management officer, also attended the Azusa City Council meeting and added that the 1,200 residents Mountain Cove expects to house will increase overall fire danger and taxpayer costs. "This development places my firefighters at greater risk, places a greater tax burden on the taxpayers of the United States, and also draws down the resources of the Los Angeles County Fire Department and the level of protection for the rest of the city."[172] The county fire department did not offer testimony at this meeting.

During this meeting, Azusa staff reported an expected small yearly cash flow resulting from Mountain Cove. After the development was approved, however, the city struck a deal with the Mountain Cove developer, Standard Pacific Homes, to fund infrastructure costs (roads, sewer, etc.) through a Mello-Roos Community Facilities District. Voters inside a proposed facilities district must approve creation of it, but the city held the election before Mountain Cove was officially subdivided—making Standard Pacific the only legal voter. The election

[170] AllRefer Gazetteer. See http://reference.allrefer.com/gazetteer/S/S03239-san-gabriel-river.html.
[171] From taped recording of the January 18, 2000 meeting of the Azusa City Council.
[172] From taped recording of the January 18, 2000 meeting of the Azusa City Council.

was 1 to zero, but now 327 homeowners are on the hook for the next 30 years to repay $9 million in bonds authorized by the election, $100,000 per homeowner in some cases.[173]

CGS supports use of community facilities districts to support infrastructure costs for new development, but Azusa's handling of Mountain Cove leaves something to be desired. Though legal, a vote of one to zero is not a transparent way to pass authorization of $9 million in bonds, because documentation of such is easily lost in the myriad documents home purchasers must sign before entering escrow. The burden should be on the city to better publicize such actions.

The Monrovia Nursery and Mountain Cove developments will make Azusa a more affluent community, changing a pattern that, beginning with gravel mines within its boundaries, made it undesirable. The city was thriving in the 1940s, with a downtown business district and attractive, if modest, homes. "In the '60s, cheap housing came in and politics and governance wasn't the best," Person said. The city went through six city managers in 12 years until the hiring of Cole, who has lasted five years (and who now is departing to become city manager of Ventura). "Azusa is on its way to becoming something."

How Local Decisions Have Regional Impact

To understand how this fractured system impacts the region, it is necessary to study an issue with region-wide implications. Water pollution is such an issue.

The San Gabriel River watershed receives drainage from a 689-square mile area of eastern Los Angeles County. The headwaters of the river are high in the San Gabriel Mountains, with the East, West and North Forks combining into a main channel that extends 58 miles to Long Beach.

The extent of how development in the hillside can cause water pollution downstream is shown by the Mountain Cove development in Azusa, located on 285 acres bordered by the Angeles National Forest and the San Gabriel River. Portions of the development are located in a 100-year flood zone, an area defined by federal officials as an area susceptible to the worst flooding expected over a period of 100 years. To protect against flooding from the river, the banks have been lined with concrete.

The environmental impact report on the project, required by the California Environmental Quality Act, said the concrete lining of the river will increase the velocity of the river flow while reducing the river depth. In addition, the environmental impact report said, construction of homes, streets, driveways, patios and other parts of the development will increase the amount of "impervious surfaces" in the project, reducing the ability of the former agricultural land to absorb storm water. "As a result of that action, the quantity of surface flows will increase and the quality of those storm waters will decrease," the environmental impact report said.[174] While engineering in the development will carry storm water from the development, the river, heading downstream, could be turned into a powerful

[173] Love, Marianne "Azusa OKs Tax on Cove," *San Gabriel Valley Tribune*, August 5, 2003.
[174] Mountain Cove Residential Development Project DEIR, October 1999, City of Azusa.

torrent in the event of a large storm carrying huge amounts of water and sediment through the foothills to Santa Fe Dam in the flatlands.

Azusa Mayor Cristina Cruz-Madrid, who opposed Mountain Cove, said she fears the project will affect portions of the flood plain below the development. "I would have preferred less housing," she said.[175]

Belinda V. Faustinos, executive officer of the San Gabriel & Lower Los Angeles Rivers and Mountains Conservancy, which purchases land to preserve open space, expressed similar concerns. She said the project will impact the flood plain down to Santa Fe Dam, in the San Gabriel Valley flatlands. "In terms of water issues, it will have much impact," she said.[176]

Southern California-based water officials said the issue is worth study. They are investigating whether such hillside developments cause pollution. "Ground is a great filter," said Xavier Swamikannu, who heads the storm water program for the state Regional Water Quality Control Board-Los Angeles Region. "But when you put concrete over it, the value is lost." [177]

Bill DePoto, watershed manager for the Los Angeles County Department of Public Works, said, "All we know right now is that [downstream pollution] can happen, by the overall science of what we know about how nature reacts [to covering the ground with impervious surfaces]…When you pave you expect more runoff at a higher rate…When you install concrete, pipes, pave over with driveways and streets, less [water] soaks through. This is expected in hydrological science. It would differ area by area, and depending on the steepness but in general that is what happens."[178]

There is enough evidence pointing to the possibility of downstream pollution to prompt the county public works department to begin a study of potential pollution in the San Gabriel Valley. This is being done under the requirements of the federal Clean Water Act, which aims to control storm water pollution as well as that from industry and sewage treatment plants.

From the Santa Fe Dam facility, the river is forced into a concrete lined channel, flowing through the cities of Industry, Montebello, Pico Rivera, Downey, Santa Fe Springs, Norwalk, Bellflower, Cerritos, Lakewood, and Long Beach.

It is not known whether increased velocity due to the concreting of the San Gabriel River and contaminants from Mountain Cove construction and occupation will have a significant impact below Santa Fe Dam. That will have to be determined by the county study. But other studies show that any pollution of the river has widespread regional impact.

---

[175] Interview with Christina Cruz-Madrid and Belinda Faustinos, September 30, 2003.
[176] Id.
[177] Interview with Xavier Swamikannu, September 15, 2003.
[178] Interview with Bill DePoto, June 26, 2003.

As the river flows toward Long Beach, some of the water is used to replenish the San Gabriel River's underground water supply. These ground water storage areas are polluted.

The Environmental Protection Agency said in a report last year that "over 30 square miles of groundwater under the valley may be contaminated" from industrial pollution in an area where fruit groves were rapidly replaced by residential subdivisions and huge industrial plants after World War II. The area now contains four Superfund cleanup sites.[179]

The pollution has affected the river, according to a study by Cal Poly graduate landscape architecture students. "Industrialization and the petroleum industry… has produced a number of contaminated sites…. These toxins, along with pollutants from homes and streets, contribute to the degradation of water quality in the San Gabriel channel."[180] The pollution reaches to Long Beach wetlands, beaches and the harbor.

"The urbanization of Los Angeles has resulted in a significant amount of pavement or buildings that now preclude the infiltration of water into the ground," said a report of the Los Angeles and San Gabriel Rivers Watershed Council. "This has both reduced recharge to the groundwater basins and has increased flow, especially peak flow during storms, in the river systems."[181]

"Decades of sprawling development in eastern Los Angeles County and a very complicated web of jurisdictions have taken a toll on the ecological function of the San Gabriel River watershed," said a report by American Society of Landscape Architects. "Lack of coordination and overt competition among jurisdictions resulted in intrusive flood protection measures, the paving of important groundwater recharge areas…"[182]

A report by a University of Washington scientist shows the regional impact. The study, by Dr. Barbara Hickey and her staff, said "the 'mighty' San Gabriel River becomes a raging torrent after heavy winter rains, and can then transport a variety of undesirable invisible and visible contaminates to the coastal area at Long Beach and Seal Beach. Specifically, the contaminants include lead, copper, zinc, oil, and grease. These contaminants can then become entrapped within the normal sediment load deposited on the ocean floor. Here, there is the possibility that the contaminants can become incorporated into the tissues of organisms that live on or within the sediment, and then on to the rest of the food web within the ocean."[183]

When she discussed the water pollution question, Azusa Mayor Cruz-Madrid said "there are no regional agencies to consider these questions."[184] The comment could extend to other issues.

---

[179] U.S. Environmental Protection Agency Region 9 update, May 2003. See http://yosemite.epa.gov/r9/sfund/overview.nsf/0/fe01fd26449d8c90882567ec006580ee?OpenDocument.
[180] Rum, Heather T. Beneficial Uses of the Los Angeles and San Gabriel Rivers Los Angeles and San Gabriel Rivers Watershed Council, 2002.
[181] Id.
[182] Thomas, Rick. *Watershed Plan for the San Gabriel River,* 2000.
[183] See http://seis.natsci.csulb.edu/bperry/scbweb/poland.htm.
[184] Interview with Christina Cruz-Madrid and Belinda Faustinos, September 30, 2003.

Trials and Tribulations of Regional Agencies

Over the years, there have been several efforts for a more regional governmental approach to solving Southern California regional problems, all weakened or defeated by the legislature's dedication to home rule. Several bodies have been created, some with considerable power. They tend, however, to be single-purpose agencies, not working together to encompass related issues such as fires and floods, or transportation and air pollution. And members on their governing boards are appointed in complex ways not understood by the public. The Los Angeles County Board of Supervisors, the mayor of Los Angeles and the 88 cities in the county, for example, each appoint some of the 13 members of the board of the Los Angeles County Metropolitan Transportation Authority. This complex appointment procedure makes these boards remote from the citizenry.

An early effort to deal with regional problems was the legislature's creation of the Southern California Association of Governments, known as SCAG. Formed in the early 1960s, SCAG is a voluntary association of locally elected city and county officials that have only advisory power and is financed with federal and local funds. Similar organizations exist in the San Francisco Bay Area, Sacramento and San Diego. Once envisioned as organizations with power, they were made voluntary as they moved through a legislature strongly influenced by city and county home rule advocates represented by two powerful advocacy groups, League of California Cities and County Supervisors Association. As a result, scholar Stephanie Pincetl says, when these bodies "address regional policy questions, home rule ideology usually prevails with each jurisdiction jealously protecting its turf. This makes regional consensus about metropolitan planning and coordination elusive at best."[185]

Still, SCAG has some power to influence regional policy making, largely in the transportation area. When a project such as a highway or a new commuter rail is proposed, like the Metropolitan Transportation Gold Line into the San Gabriel Valley, it must be part of the SCAG transportation plan to receive state and federal funds. To be included in the plan, the project must meet SCAG standards of air quality and fuel costs and have the effect of creating livable communities.

SCAG is also a clearing house for information about projects in one community that affect other communities. But SCAG's Executive Director, Mark Pisano, said the program has languished because of a shortage of resources.

There are other regional agencies of particular importance to the San Gabriel Valley and the foothills, each serving a single purpose. Among the most important:

- **South Coast Air Quality Management District** is in charge of controlling air pollution in Los Angeles, Orange and parts of Riverside and San Bernardino counties, a vast area encompassing 12,000 square miles with 14 million people, the second most populous urban area in the United States.

[185] Pincetl, Stephanie. *Living On the Edge: Bringing Nature Into the City* 2000. At the time, Pincetl was associate professor of geography, coordinator of the Sustainable Cities Program, University of Southern California.

- **Los Angeles County Metropolitan Transportation Authority** operates buses and trains throughout the Greater Los Angeles area.

- **Los Angeles Regional Water Quality Control Board**, a state agency, is in charge of protecting surface and ground water quality in the Los Angeles region, including the vast coastal watersheds of Los Angeles and Ventura counties and a small portion of Kern and Santa Barbara counties.

- **Los Angeles County Local Agency Formation Commission,** "LAFCO," has the authority to approve or disapprove any petition for incorporation, special district formation or dissolution and annexation of cities or districts. Each county has one such agency, consisting of five commissioners: two county supervisors, two commissioners representing local cities and the fifth member chosen from the public by the other four members.

- **San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy** attempts to preserve and increase open space for recreation and environmental protection in an area covering 56 cities in Los Angeles County and 10 in Orange county, including the entire San Gabriel Valley. It is a state agency, one of seven conservancies under the State Resources Agency. The others are Baldwin Hills, Tahoe, Coachella Mountains, San Joaquin River, Santa Monica Mountains and Coastal.

Rivers and Mountains Conservancy

The San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy reveals much about the difficulty of coming up with regional solutions in an area where there are so many cities dedicated to home rule. In creating the agency in 1999, the legislature denied it the power of eminent domain, which would have permitted it to condemn land it wanted for open space. By contrast, the Santa Monica Mountains Conservancy, invested with this power, has used it to obtain huge amounts of land in the mountains. The San Gabriel conservancy also was denied another crucial power given to the Santa Monica Mountains Conservancy, the right to override local zoning laws.

The impact of such a denial of authority is revealed in the San Gabriel conservancy's effort to create a wildlife and recreation area on 57 acres of a former duck farm on the San Gabriel River in the flatlands below the foothills at Whittier Narrows. Using a private nonprofit (The Trust for Public Lands) as an intermediary, the conservancy purchased the land from the owners for $4.17 million. The money came from funds raised by a $60 million state parks bond measure and a state $20 million water bond.

Part of the duck farm, however, is within the boundaries of the City of Industry, a city of few residents but many businesses and industries. It was created to provide a business friendly municipal environment in the San Gabriel Valley. Industry wants to build a water quality control plant on the duck farm property to serve business expansion. Since Industry controls

the zoning of the land, the San Gabriel conservancy, which objects to the location of the proposed plant, must engage in long negotiations with the city.

Can't We All Get Along?

Some of the regional agencies, especially those dealing with pollution and transportation, have considerable power. But they do not work together. All pursue their single purposes independently. These are the products of well intentioned state policy that was scaled back in scope due to the objections of proponents of home rule, chiefly the League of California Cities and the California Association of Counties.

There are other factors that block a regional approach. One is social. If cities gave up any of their power to plan and zone, a regional agency might force them to include lower cost housing in their plans. "Home rule creates disparities, segregation," said Azusa Mayor Cruz-Madrid. Bradbury, the San Gabriel Mountain foothills' most extreme example, is zoned to permit only construction of 10-acre estates, a far cry from working class Azusa and its dense development. Bradbury's restrictions make growth even more likely to occur in already dense cities. "Home rule continues to ghettoize communities like ours," said the mayor.

Another factor is fiscal. Proposition 13 has forced local governments to shape land use policies around the need for sales tax revenue, the so-called battle for big-box retail developments and auto malls. As Stephanie Pincetl put it in her book *Transforming California*, there is "growth warfare throughout California, with a proliferation of initiatives (and elections) that created a see-saw effect where public officials were caught between developer persuasion (and the need to raise revenues) and voter backlash, resulting in rival forces winning control of city councils in alternate elections."

Nick Bollman, Chair of the Speaker's Commission on Regionalism, has said the state legislature has displayed a penchant since passage of Proposition 13 for raiding local governments' property tax coffers to balance state books in times of fiscal strain.[186] Since then, local governments have had to scramble for sales tax revenues because their share of property tax revenues is small and the cost of providing services keeps rising. That can cause communities to expend time and taxpayer money seeking to lure new "big box" stores and auto malls, which are seen as sales tax cash cows for local governments. However, local taxpayers may ultimately pay twice for large new retail developments: through incentive packages to attract prospective developers, and through life style changes including increased traffic and smog.

In past legislative sessions, Democratic Assemblyman Darrell Steinberg of Sacramento introduced legislation which proposed to distribute increases in sales tax revenues in three ways: one-third based on the location of the sale, one-third by population and one-third to counties complying with new low-income housing and homeless care standards. The plan would have only applied to the six-county Sacramento area but was widely considered to be precedent for the rest of suburban and urban California.

[186] Governor Schwarzenegger proposed a budget in 2004 detailing another such raid from local government.

Steinberg is just the latest of a number of frustrated legislators and governors who have tried to handle regional issues in a regional manner. In 1959, with concern over uncontrolled growth beginning, the legislature created a State planning office. This still exists, with advisory but no real power. At the same time, a state Coordinating Council on Urban Policy began a two- year study that recommended creation of a multi-purpose regional district in each of the state's metropolitan areas to be responsible for planning, transportation and other regional matters. These districts would be elected by majority vote in the metro areas. The League of California Cities and the County Supervisors Association objected. The result was the formation of Local Agency Formation Commissions.

Despite years of failure, the problems presented by this report are so pressing that they demand another try at a solution. In a state as diverse as California, communities must determine their future. Eureka, in the far northwestern corner of the state, has little in common with San Diego near the Mexican border. The San Gabriel Valley foothill community of Glendora, populated by people who wanted to get away from Los Angeles, does not want its future determined by the big city. But the wildfires of 2003, destroying homes built in defiance of danger, are evidence of the need for communities and governments to find a better way.

Snapshot of Home Rule: Glendora

While CGS has assessed effects of wildfire and flood policies in the San Gabriel Mountains communities as a whole, walking the streets of individual cities and talking to residents is another important perspective. CGS staff entered Glendora in 2002 and discovered a recall election afoot. Three sitting city council members faced recall, and allegations were flying that the election was actually over hillside development rather than individual council members. The following section tests that allegation and reveals problems larger than any one election can solve.

Pride of the Foothills

On aesthetics alone, the city motto of Glendora ("Pride of the Foothills") is well founded. Oak-dotted, grassy hills rise mostly undeveloped in northern and eastern Glendora. The city's numerous open spaces include the 200-acre South Hills and the 600-acre Glendora Wilderness parks. A private conservancy owns and maintains a 300-acre reserve for the official city flower, the Brodiaea. It is the rare kind of place where you could imagine yourself in the countryside, gawking at a hawk aloft with a spitting rattlesnake in its talons (as one resident reported) and then driving a few minutes down the street to shop at Wal-Mart—all within city limits.

Glendora, a city of 50,000, exemplifies the charm and desirability of the San Gabriel Mountain foothills—and the obstacles that the foothill cities present to any plan to solve regional problems with regional solutions. The city reaches from the San Gabriel Valley flatlands to the mountaintops, with residential neighborhoods ranging from modest in the southern part of the city, a community formerly known as Alosta, to luxurious in the foothills.

Like other cities in the San Gabriel Mountain foothills, Glendora offers access to jobs in the San Gabriel Valley and the Inland Empire, to the east; Orange County to the south and Pasadena and Los Angeles to the south and west. Freeways provide transportation, supplemented by commuter busses and eventually the eastern extension of Los Angeles County's light rail system. (The Metro Gold Line now reaches Sierra Madre; with more federal funds, service will extend eastward using tracks bisecting the Foothill [210] Freeway towards Claremont and beyond.)

To Glendora residents we interviewed, their city is a fortunate island, removed from the tensions of life in urban Los Angeles, a small city that can shape its own future. We found, however, a city with tensions of its own, a beehive of local politics that impact cities miles away. To outsiders these disputes may be arcane. The same is true for political disputes in other small cities. Yet an understanding of these disputes is necessary for policy makers who deal with regional issues, such as those involved in this study of the San Gabriel Mountain foothills. Such an understanding brings theoretical concepts down to reality.

Glendora Politics

The issues dividing Glendora surfaced in a recall election in 2002, providing a chance to study the political forces at work through the city's excellent campaign contribution reporting system and interviews with participants on both sides. We recommend the process to anyone concerned with regional governance. It is easy enough to discuss the big picture from the intellectual safety of a seminar. It is much more difficult, and enlightening, to interview angry residents on their home turf.

Glendora has a general-law government with a five-member, part-time city council, a form of government common to smaller cities in California. Day-to-day administration is in the hands of a professional city manager, who leads the city staff.

A political career in Glendora is seen more as humble service to a cherished community than a stepping stone to higher office. Councilmembers typically begin as a community booster, serving on the local chamber of commerce and perhaps advancing to a planning board. Only a chosen few, including descendants of land-rich early Glendorans, were likely to land on the city council, where radical upheaval was frowned upon and unopposed elections were commonplace. This changed with the election of John Harrold and Richard Jacobs in 1999.

Harrold, whose wife was a longtime Glendoran, made himself known through attendance at public meetings and outspoken criticism of the city's environmental stewardship. Jacobs conducted a successful door-to-door campaign on similar issues.

Combined, the two candidates in 1999 polled only 30% of the vote but the seven other candidates split the remainder, according to Doug Tessitor, a recall organizer and current councilmember. "Now we strategize on how not to split the vote,"[187] Tessitor said in an

[187] Interview with Doug Tessitor, January 23, 2002.

interview held before the March, 2002 recall. (Tessitor won election in the regular municipal election held in March 2003.)

Harrold and Jacobs were supported by a union, Local 1428 of the United Food and Commercial Workers, which represents grocery workers. In 1999, the local was gearing up to oppose construction of a Wal-Mart store in a proposed Glendora shopping complex near the Foothill (210) Freeway, called Glendora Marketplace.

Glendora found itself caught up in a dispute that extended far beyond its borders. Local 1428's opposition was part of a nationwide campaign by the union against the non-union retail chain. In 2003, the union struck three Southern California market chains when management proposed reducing health benefits and salaries offered new workers on the grounds that they could not compete with Wal-Mart and its lower salaries and benefits.

In seeking the Wal-Mart store, city officials were following a pattern of other small cities in California that encouraged large retailers and auto dealers to establish businesses to increase municipal sales tax revenues. It was an example of the "fiscalization of land use": whatever makes the city the most money is often the land use vision that is implemented.

Jacobs and Harrold were elected They voted against the Wal-Mart store and Glendora Marketplace development, arguing that the site posed environmental concerns. The resulting 2-2 vote (one council member abstained because of a conflict of interest) stopped the project. While environmentalism matters in Glendora, the Marketplace project's location next to a freeway diluted many citizens' concerns.

Return of Wal-Mart

The next year, 2000, the issue was put before the voters and the council's denial of the project was overturned by a vote 63% to 37%. With sales tax receipts from large retail centers vital to the economic wellbeing of small cities like Glendora, coupled with the specter of those same stores located in neighboring cities, denying Wal-mart was a risky move.

In 2001, Paul "Sonny" Marshall campaigned for office in a joint effort with Mike Conway. The two shared resources and letterhead, but when they both won office, the two found themselves on opposing sides of votes. After the March 2001 municipal election, a new power troika emerged with Jacobs, Harrold and Marshall voting together and the latter's erstwhile ally, Conway, joining veteran councilmember Marshall Mouw in the dissenting minority.

Almost concurrent with the 2001 election were plans for a recall, according to organizers. Appetites had been whetted by the successful referendum on Glendora Marketplace. Interest was stoked when the new council majority set about to remake the face of local government. As sometimes occurs during "housecleaning" actions following shifts in political power, the Harrold/Jacobs/Marshall majority voted to fire veteran commissioners on various city panels, including the socially prestigious planning commission.

The removed commissioners were encouraged to reapply, once they signed a code of ethics barring spots on city commissions to vendors with business before the city. Such codes are typical at higher levels of government, but in Glendora the roles of business owner and local politics are often intermixed.

Among various other alleged misdeeds, the threesome was faulted for depletion of cash reserves on pet projects, letting water and sewer infrastructure needs languish, mishandling legal cases and settlements, firing a popular city manager and rushing the hiring of a city attorney. Supporters of the three said the charges were overblown and based on hurt feelings. Marshall was also accused of trying to steer city business to his construction firm in the form of a contract for construction of athletic fields on city land. Marshall admitted plans for athletic fields were drawn up but has denied wrongdoing. [188]

And so, for the first time in its 91-year history, Glendora was roiled by preparations for the first city council recall election. Three men without deep ties to Glendora history—a developer (Marshall), an assistant district attorney (Harrold) and a retired professor (Jacobs)—became the most polarizing figures in the city. Political mailers compared them to Olympic ice-skating judges and Enron executives.

Triple Recall

CGS gathered campaign finance documents, election information and interviews from Glendorans and others in order to glean insight into local politics and to discover, to whatever extent, the recall election was a proxy fight over hillside development, as recall opponents have alleged.

CGS found, to the contrary, that the Glendora recall election was a referendum on personality and a lingering echo of disappointment over Glendora Marketplace. Hillside development in Glendora is heavily constrained by land use laws, periodically toughened by passage of new ordinances but exempted from time to time—through the use of variances and specific plans—to allow development of hillside parcels. At times there has been the appearance of favoritism. In a court fight over a single lot, Glendora has paid out $800,000 to a homeowner whose neighbor received preferential ruling on a zoning matter for a new house. The city currently faces another lawsuit alleging it does not follow its own codes when vetting building projects of friendly Glendorans, but throws the book in essence at outsider developers.

The two major warring factions were, on one side, established city business leaders and political newbies awakened from decades of civic apathy into outrage and action. On the other side was a smaller coterie surrounding the three elected council members: John Harrold, Richard Jacobs and Paul “Sonny Marshall. All three council members, however,

[188] Interview with Paul Marshall, April 25, 2002.

were recalled by narrow margins.[189] Turnout among Glendora's 29,140 registered voters was 40 percent.

Using California disclosure data provided by four political action committees, CGS developed the graphs on the following pages:

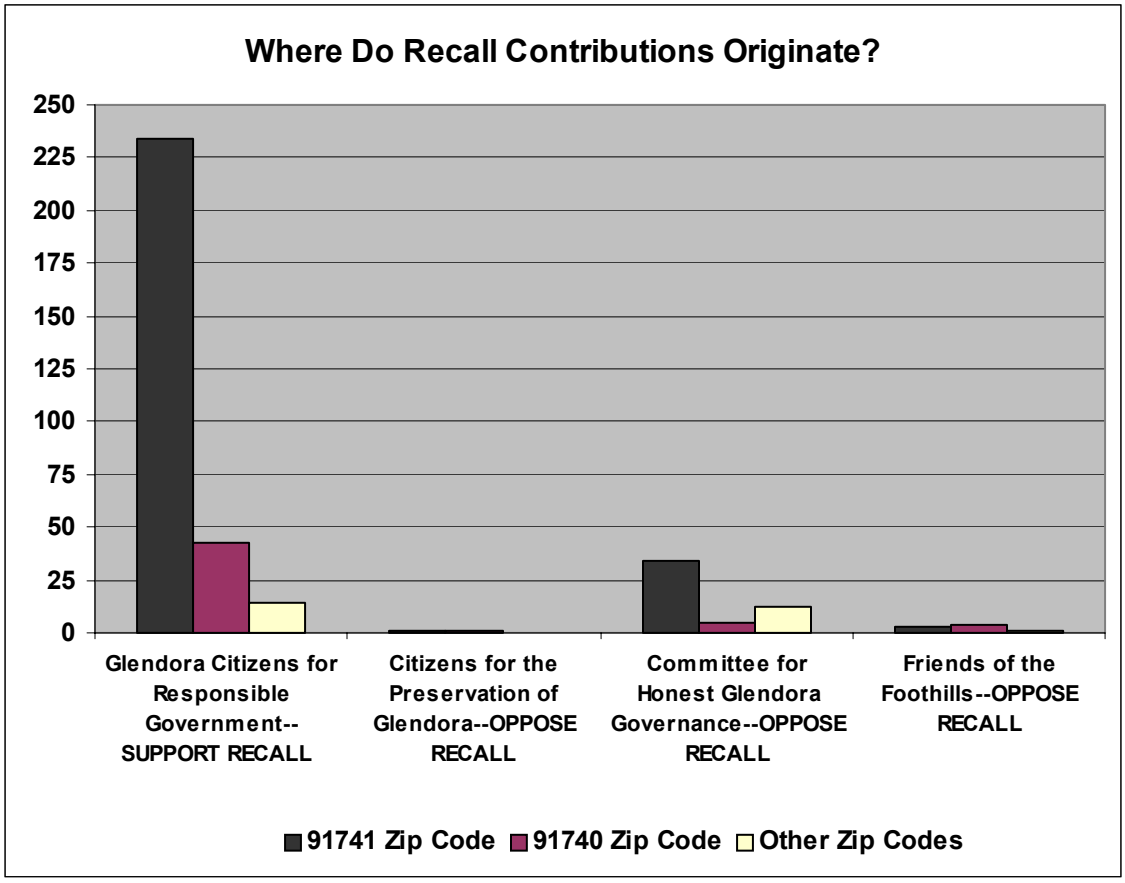


Fig. 27. The 91741 ZIP includes northern Glendora and most affluent development. The 91740 ZIP comprises less affluent southern Glendora, including the neighborhood formerly known as Alosta.

[189] Councilmember Richard Jacobs was ousted, 6,028 to 5,609 votes (51.8 percent to 48.2 percent); Gary Clifford won the race to succeed him. Councilmember Paul Marshall was ousted, 5,854 to 5,760 votes (50.4 percent to 49.6 percent); Cliff Hamlow won the race to succeed him. Mayor John Harrold was ousted, 5,953 to 5,733 votes (50.94 percent to 49.06 percent); Ken Herman won the race to succeed him.

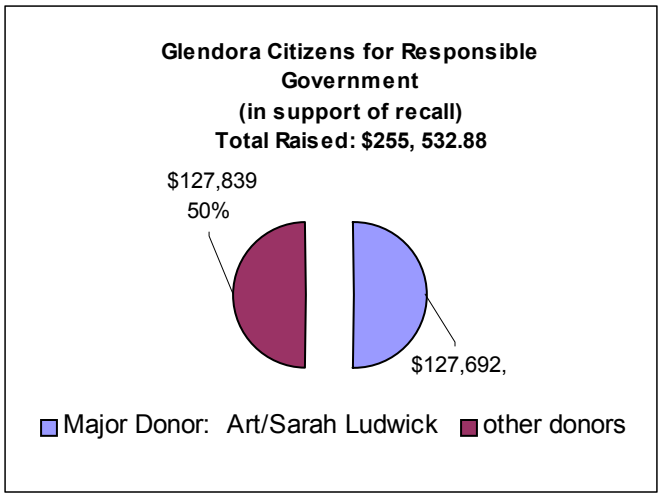
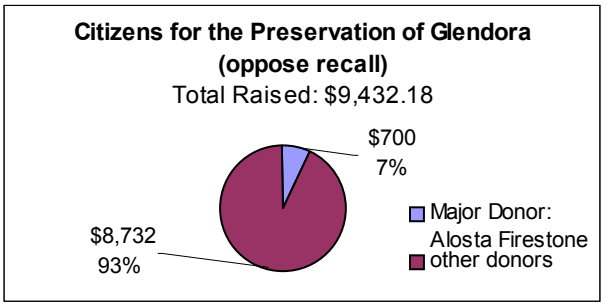
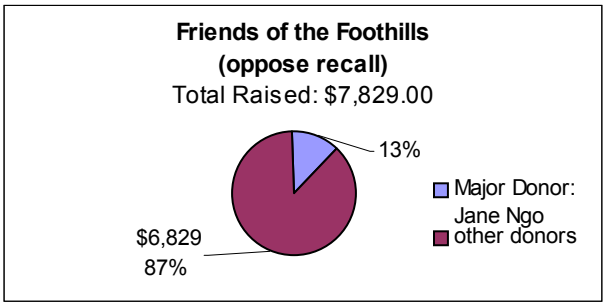


Fig. 28. This committee also made $3,361.53 in independent expenditures to support the campaigns of Ken Herman, Cliff Hamlow and Gary Clifford. Art and Sarah Ludwick's contributions include a $50,000 loan to be repaid at 6 percent interest, but campaign finance documents do not indicate this amount has been repaid.





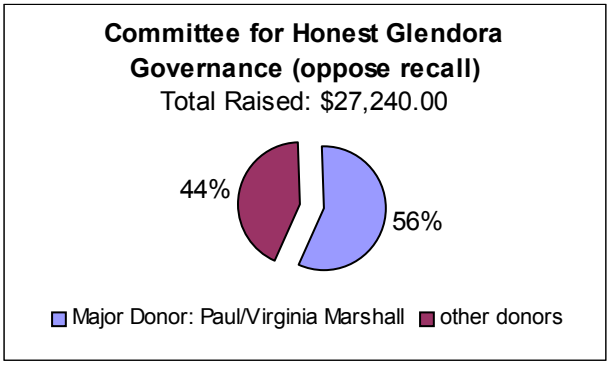


Fig. 29. Totals raised.

Election Night Interviews

On the night of the election, March 5, 2003, the following comments were recorded as voters exited a polling station in Glendora. Voters were not asked their names.

- "I think the recall campaign used underhanded tactics…I might have [voted in favor of it] otherwise."

- "Many voters are apathetic. If you asked them one way or the other, they would probably say yes. But they won't vote. The 'no recall' people are passionate about their candidates."

- "I had heard just before the election, it was 2:1 against the recall."

- "This is my second vote ever and I don't really know the issues. I'm a recent U.S. Citizen. From the ballot language, I voted yes. I think we should give new people a chance."

- "There needs to be due process in hiring and also in dismissing commissioners. This is not a dictatorship and it shouldn't be a dictatorship. That's not the way business is done in this town."

- "This is about property and land development, about people like John Gordon [a former councilmember and landowner whose family arrived in Glendora in 1895]. My family's been here five generations but we didn't have property. I think they want to stick more $500,000 houses on smaller lots."

- "We're upset that we had to come back to vote. We wanted our first vote to count. Why should we pay the cost of an election and suffer the signs and the public discord?"

Interviews with Recall Opponents

CGS was able to access Glendora campaign finance information via the Internet, a rarity among California cities and with no equal among the 13 other municipalities reviewed for this report. CGS also conducted several interviews with recall campaign contributors as well as others identifying themselves as recall opponents.

CGS contacted as many names as possible from a list posted on a Web site owned by Councilmember Marshall, http://www.sonnymarshall.com. The list, entitled "Hidden Agendas," listed major contributions for the recall effort (it has since been removed). A preface to the list read in part, "Developers who want to build in the foothills back the recall effort. They want to get rid of some new council members who will not approve their projects. Many of those behind the recall are sore losers who are upset about losing their majority on the city council in the last election. In addition, the recall effort is about 'the

good old boys' that have been in power at city hall for decades, wanting to get back in power after losing in the last two elections."[190]

Kristin Parisi, a Glendora resident and onlooker to local politics, was an employee at Councilmember Marshall's construction firm during the time of the recall. She helped coordinate recall opposition efforts. In an interview before the recall election occurred, she said Glendora politics was less insular under a council controlled by Harrold, Jacobs and Marshall. "Harrold and Jacobs were elected on quality of life issues. There is a lack of regional planning here, and all the cities making individual decisions. Dick Jacobs led the charge here that we need to plan regionally and work with neighboring cities."[191]

Parisi said Harrold and Jacobs' opposition to the Glendora Marketplace was based on environmental impacts, and also that the recall opponents faced moneyed foes representing the "same mix: developers, car dealers and property owners who have future designs for their property."

Former Mayor John Harrold refused several requests for interviews. CGS interviewed former Councilmember Jacobs two weeks before the recall election. "The recall might very well be successful," he predicted. "The way it's organized, for people with vast financial resources, the system works to their advantage."

Former Councilmember Richard Jacobs, retired from his job at the Center for Regenerative Studies at Cal Poly Pomona, said quality of life in Foothills communities was threatened by piecemeal development. "You can't see the boundary line between them, but each city is isolated in trying to cope with developer interests. Monrovia got a proposition passed to fund the purchase of land, but the same thing was defeated in Duarte. What this whole thing begs for is some kind of consortium attempt to maximize the leverage of the foothills communities to preserve the greatest amount of land."[192]

CGS was able to contact and interview seven of the 32 individuals identified on the "Hidden Agendas" list. One of them was furious at Councilmember Marshall but asked not to be quoted. Another refused to be interviewed. Others we were unable to reach. Almost all expressed pride at their inclusion on the list, arguing it was a sign of civic pride. "It's incredible," said Dr. Tim Ferguson, a physician named on the list. "Seven past citizens of the year were on the list. Every living citizen of the year gave money in favor of the recall."[193]

Doctor's Diagnosis

Dr. Ferguson took umbrage at the council majority's firing of Gary Napper, the former Glendora city manager (now employed by the City of Clayton, CA). "They withheld his severance package until six weeks after his firing, until after he signed a letter saying he

[190] The "Hidden Agendas" document no longer appears on http://www.sonnymarshall.com. For an original copy, contact CGS.
[191] April 30, 2002 interview with Kristin Parisi, Monrovia, Calif.
[192] February 22, 2002 interview with Richard Jacobs.
[193] Interview with Tim Ferguson, April 22, 2002.

resigned. They knew if [Napper] sued, he would never get hired as a city manager. I call that extortion and an unethical way to do business. It was after I found out about that that I contributed."[194]

Dr. Ferguson and his relatives, descendants of post-Gold Rush bee farmers, control several hundred acres of Glendora's remaining open space. "I've been on this piece of land for 50 years and I have no intention of subdividing," he said during a CGS visit on April 22, 2002. Despite its 4,600 square feet, Ferguson's squat home sits camouflaged on a hilltop behind miles of single-lane driveways and security gates. Rock aggregate siding stanchions the home against gusting winds, and wild grasses grow on his rooftop, absorbing heat and insulating the interior. "I have no trust in what man does,"[195] he explained during a spectacular tour.

Fig. 30. Dr. Tim Ferguson's house viewed from hillsides above downtown Glendora.

Fig. 31. Dr. Ferguson and his rooftop view of Glendora and environs.

[194] Id.
[195] Id.

With a view of it all, Dr. Ferguson has seen hillside development creep slowly up the hills toward his landholdings. He is critical of white-columned, Tudor-style mansions either recently built or under construction below him. He said laws governing "pads," where graders leveled natural ground in preparation for a building foundation, encourage too-tall homes.

"Glendora's hillside ordinance encourages Tudor mansions, which as a Scotsman I hate especially," Ferguson said. "A house can only be 20 percent of [the size of a] drilling pad. So you get big pads and little houses which invariably need two stories to cut it for homeowners. When those homeowners get older and their kids leave, they're going to get disgusted with those homes….I'd prefer to see condos clustered around open space."[196]

Fig. 32. Building pads in the hills above Glendora await new home construction.

Other Interviews with Recall Proponents

Art Ludwick is a 38-year resident and owner of sprinkler manufacturer Rainbird Corp., which has its headquarters in Glendora. At a total exceeding $127,000, Ludwick and his wife Sarah contributed far more in money and resources in support of the recall than any other single donor. (The next biggest donor was ex-Councilman Marshall and his wife Virginia, who together contributed more than $15,000 in opposition to the recall.)

[196] Id.

"Other than one school election, I've never contributed before." Ludwick said. "Then came the recall. I believe the councilmen involved were destroying the city because of how they treated people who really cared about the community…this was more about attitude than political posture."[197]

"This was not about hillside development," Ludwick added. "A lot of people were confused. They thought [voting against the recall] was the only way to have hillside preservation. But the three people [elected to the council following the successful recall] are every bit as committed to preserving the hillsides. Nobody in this town wants it to look like Glendale."[198]

Another longtime resident contributing in support of the recall was Art Cook, a Glendora public works director and the city manager before Gary Napper. Cook blamed the recall on what he perceived as the majority's "arrogance," "insults," "abuse of power," and "total disregard for the law" (a reference to an alleged Brown Act open-meeting violation regarding the hiring of a city attorney).[199]

Bob Kuhn, a former Glendora planning commissioner, city councilman and mayor, said the "recall happened because [the council majority] made some mistakes and lost a couple of 30-second sound bites." "They didn't do anything illegal to incite the recall," Kuhn said. [200]

Hillside development in Glendora, Kuhn said, is a "function of money." "Land rich but cash poor" landowners find it hard to make a profit developing their own lands, he said, which leads them to sell to developers like NJD, which now seeks to develop the Canyon Oaks community in the eastern Glendora hillsides.

'At 20 homes, a lawsuit is cheaper'

Canyon Oaks is a proposed 400-acre development with 200 acres in Glendora and 200 in San Dimas. Landowner NJD Corporation, which acquired part of the property from a longtime Glendoran, has encountered resistance from both cities for its plan to build homes. NJD first wanted to build 145 homes but also has proposed 110 and 76, which was most recently turned down by the Glendora City Council. Staff at the city say their codes only allow 20 homes—one every 10 acres.

NJD representative Richard Jemison says, "At 20 homes, a lawsuit is cheaper."[201] Claiming that city has promoted its stricter hillside ordinance over its General Plan, resulting in economic loss of NJD's property, separate litigation is proceeding against both Glendora and San Dimas. The cities have won in Superior Court, where judges have upheld the cities' right to implement stricter development ordinances in the periods between 10-year revisions of a city's General Plan. The California Supreme Court in 1990 ruled that zoning in conflict with

[197] Interview with Art Ludwick, May 7, 2002.
[198] Ibid.
[199] Interview with Art Cook, April 26, 2002.
[200] Interview with Bob Kuhn, April 22, 2002.
[201] Interview with Rick Jemison, May 1, 2002.

the General Plan is invalid. Jemison said the judges were loath to restrain the cities from passing tough ordinances.

But the housing market is hot, and Canyon Oaks won't go away so easily. Jemison said the city's history of writing ever-tougher laws but allowing overly permissive exemptions to those laws bolster another legal case NJD has filed against the city. He cites recent development in Easley Canyon, where homes are located in canyon bottoms—a violation of the city's hillside ordiance, he says. "That ordinance forces us to build on ridgelines, instead of in canyons where it could do less harm,"[202] Jemison said.

Gary Napper, the former city manager for Glendora who was deposed by the Harrold-Jacobs-Marshall majority, remembered Easley Canyon as a "Oh no! What's under that rock?" moment early into his tenure in Glendora. Napper had been surprised by the developer of Easley Canyon, who showed up at his office demanding roughly $200,000 in compensation for a water tank built to support new housing development in Easley Canyon. The water tank was oversized and other city residents would benefit from its use. It turned out former city manager Art Cook had struck a verbal deal with the developer but had not informed Napper. "There was no documentation, nothing had been taken to council. My staff would kind of chuckle and shake their heads," Napper said. The payment was made.

Get Out of My Town

Another former Glendoran to butt heads with city leaders was reached for an interview in Mississippi. The City of Glendora paid Robert Gagne $800,000 to settle a dispute that arose after Gagne's neighbor purchased a nearby piece of property "leftover from a major developer," Gagne said. The neighbor began to build a home on the land, which Gagne argued to the planning board and city council was in violation of city ordinances, restricting development in that area to lots no smaller than five acres. "It proceeded with no logical discussion. The council muffled [former Councilmember Christine] DeGrassi, who was the only dissenting vote when they made their decision. She was treated like a pariah. So there was a lawsuit. It was the classic case of local government trying to railroad its way, a classic case of truth in politics and truth in government."[203]

Gagne said he received threatening calls and his home was vandalized with paint. He said he found something resembling a pipe bomb on his doorstep. "I left because of the atmosphere,"[204] said Gagne.

[202] Id.
[203] Interview with Robert Gagne, April 15, 2002.
[204] Id.

Recommendations for Glendora

Glendora planning commissioners should not reap economic benefits from new development projects they vet as official representatives of the city, as has occurred in the past. The ethics code passed by the now-removed council majority should be retained.

Glendora's struggles over development pale in comparison with communities battling high rates of crime and poverty or joblessness. Still, Glendora must underscore its clean-cut image with planning and development decisions that are free from conflicts of interest. The enthusiastic response to the recall should prove, at least, that many citizens in Glendora care about their city. They should be tapped to fill spots on volunteer city commissions, rather than being dominated by members of the development community.

Appendix

CAPSULE REPORTS ON 14 FOOTHILLS COMMUNITIES

CGS conducted scores of interviews in 14 Foothills communities over a two-year period beginning in 2002. Speaking to planners and officials in individual cities, we received a general impression of a region concerned with orderly growth, mindful of environmental concerns and protective of a small-town ethos.

Motorists driving the Foothill (210) Freeway, however, may not notice where one town ends and another begins. Some cities have densely packed housing perched on terraced rows, such as in Glendale, while cities like Glendora, San Dimas and Claremont have largely preserved the green hills surrounding their cities.

Many of the interviews are encapsulated below as part of our survey of attitudes toward hillside development. While the reports are not comprehensive, the aim of this appendix is to offer meaningful examples of 14 manifestations of home rule in California.

La Canada Flintridge

La Canada Flintridge is a semi-rural, family-oriented suburb of 8.6 square miles. Married couples comprise nearly three-quarters of households and the schools rank in the country's top 5% nationwide.[205] The population in the 2000 census was 20,318; it has grown minimally, by 0.8% in the last twenty years. The city's citizens are predominantly wealthy: La Canada's median household income is $109,989, and its median home price of $837,500 ranked as the state's eighth highest in 2003.[206] A restricted-entry NASA Jet Propulsion Laboratory employing 6,000 workers is located on 175 acres in La Canada.

An estimated 95% of all city land has been developed in La Canada, and most of this development occurred before the town's incorporation in 1976. Since then, city leaders tried to limit growth drastically through stricter zoning codes. A development that originally proposed 17 lots on 47 acres of foothill land is currently under consideration by the planning department. Officials have already determined through a public environmental review process that the number of units is too high due to environmental constraints, so "it will probably turn out to be 10 units," according to Senior Planner Fred Buss.[207] If approved, this will be the largest development in La Canada in the last two decades.

[205] City Almanac. San Gabriel Valley Newspaper Group, p. 34.
[206] California Association of Realtors, August 2003 data. http://www.car.org/index.php?id=MzI1NDI=
[207] Interview with Fred Buss, October 16, 2003.

Since most town land has been developed, currently development most often occurs in La Canada when people buy older homes to knock them down and build larger houses. However, most city officials are against development and "mansionization," the tearing down of smaller houses to build large homes on small plots of land. "If you want to be elected, you have to be anti-mansionization, according to Buss. "The city wants to preserve its rural-suburban character."[208]

Altadena

Altadena is an unincorporated territory within Los Angeles County bordered by the Angeles National Forest to the north. The area has few sidewalks or apartment buildings; instead the town's many horse ranches and trails give Altadena a country feel. The racially diverse population of 42,610 has only grown 5% since 1960. Altadena's median home price in 2003 is $411,000, and the median household income is $60,549.

Altadena has had a town council for almost 25 years despite its status as a county territory. The council is a volunteer organization that is selected by Altadena citizens who choose to vote in special elections. "We relay local issues to the County Supervisor's office and to our state assemblyperson," said Jacquie Fennessy, Altadena Town Council member. "If we make a recommendation, they certainly look into it. If there is a local problem or issue, they listen to us."[209] The County Supervisor Michael D. Antonovich sends a deputy to the monthly council meetings. "We rely on the [town council] for their input, but they have no decision-making authority or legal mandate,"[210] stated Frank Meneses, Los Angeles County Acting Administrator for the Current Planning Division.

The largest development in Altadena in recent decades has been the controversial La Vina. The nearly completed development includes 272 single-family homes, a 10- acre school site and 108 acres reserved as open space. La Vina had been the subject of protests, lawsuits, and disagreement even before the LA County Board of Supervisors approved the project in 1992. A citizen's group, Friends of La Vina, sued the county, and the case went all the way to the state Supreme Court in the early 1990s. "People in the community were adamant that they did not want La Vina,"[211] according to Fennessy. "Friends of La Vina disapproved of the traffic impacts and visual impacts that La Vina would have,"[212] stated Meneses. Part of the La Vina site had been previously occupied by a hospital, but the majority of the hillside had been untouched prior to development, and the majority of Altadenans enjoyed the natural hillside views and horse trails on the property. Citizens "felt that it was too much to bear,"[213] according to Meneses. The La Vina developers significantly graded the hillside and surrounded the community with gates, which was unpopular with Altadena citizens. "Today", stated Fennessy, "people in Altadena are very disinterested in having any more development in the hills. They are interested in maintaining the hillsides."[214]

---

[208] Id.
[209] Interview with Jacqueline Fennessy, October 3, 2003.
[210] Interview with Frank Meneses, October 1, 2003.
[211] Interview with Jacqueline Fennessy, October 3, 2003.
[212] Interview with Frank Meneses, October 1, 2003.
[213] Id.
[214] Interview with Jacqueline Fennessy, October 3, 2003.

Controversy continues to surround La Vina. An active group of residents who live in La Vina along with other Altadena community members have questioned whether the La Vina developers have met the conditions set forth in the county-approved plans. Developers should have preserved trails on the La Vina property, but they have apparently not done so, to the chagrin of many vocal Altadena equestrians. Some infrastructure was also not provided. According to Fennessy, "The county has admitted it themselves that they didn't account for everything"[215] during the development process. Now county officials are performing an inquiry into the matter.

Sierra Madre

Sierra Madre is a self-titled "village" of 10,578 residents nestled in three square miles of foothill land. The village is slightly shrinking; it lost over 250 residents in the last twenty years. Sierra Madre has a safe, small-town feel; in fact, Nancy Schollenberger, the city clerk, frequently keeps city records at her home. Sierra Madre has the lowest crime rate of any non-gated municipality in Southern California.[216] The civic-minded village is the only foothill municipality in this study to have its own volunteer fire department, comprising an estimated 65 members of the community.

Sierra Madre is currently being sued by representatives of Maranatha Christian School for turning down their proposal to construct a high school on 64 acres of foothill land in conjunction with Glendale developer Dorn-Platz and Company. The village did not grant project approval because the school "would be in the middle of a residential area, and so did not seem compatible" due to the additional traffic the school would produce, according to Kurt Christiansen, Director of Development Services. Christiansen added, "When Maranatha bought the land, they were told that it would be an uphill battle to develop a school there, but they bought it anyway."[217] However Maranatha is suing based on a national law, the Religious Land Use and Institutionalized Persons Act, which states that a municipality cannot turn down development on the basis of religious use. Additionally, in order to recoup their investment, Maranatha and Dorn-Platz are now proposing a 30-unit residential development on the property, which is under review by Sierra Madre Development Services. In what could be deemed a conflict of interest, one of the planning commissioners is also an architect on the project.

A citizen's group called Residents for the Preservation of Sierra Madre has been organized to stop any development on the site. "Citizens certainly don't want to see growth in the mountains or foothills—this is a universal idea with the majority of our residents,"[218] stated Christiansen. "People say 'we don't want to be another Glendale'." Thus, since the mid-1990's, the village has been aggressively purchasing foothill land with Proposition A funds from LA County. Two hundred acres of bought or donated hillside land is currently in Sierra Madre's possession.

---

[215] Interview with Jacqueline Fennessy, October 3, 2003.
[216] City Almanac. San Gabriel Valley Newspaper Group, p. 58.
[217] Interview with Kurt Christiansen, September 26, 2003.
[218] Id.

Arcadia

Arcadia is a diverse city of 11.2 square miles and 53,054 citizens that surrounds tiny Sierra Madre on two sides. People of Asian ancestry comprise 45% of Arcadia's population, including 34% of Chinese origin, and Hispanics make up another 10%.[219] The median home price in 2003 was $568,000, and the median household income is $56,100. Although Arcadia is constructing new retail space, offices and hotels, the majority of citizens still work outside the city limits.[220]

Whispering Pines, a development on steep hillside land of roughly 45 homes on 50 acres, was started in the mid-1980s and continues today. It was controversial since the developer "cut off the tops of hillsides and filled in canyons to create building pads,"[221] stated Associate Planner Joe Lambert. Citizens of neighboring Monrovia were also concerned, since the development is located on Monrovia's borders. It appears that the city may turn down a recent proposal by Nevis Homes for a 6-unit development, since it would be located on very steep slopes of over 20%. This is equivalent to a rise of more than 1 foot for every 5 feet in a horizontal direction.[222] Arcadia normally does not allow development on such steep hillside land.

"Generally people are fairly 'live and let live'," according to Lambert. "They are sensitive to development usually when it's in their neighborhood. People are not concerned with citywide issues here; it's just the mentality of residents. The city is not solidly opposed to or in favor of really anything." Lambert emphasized the difference from neighboring Sierra Madre. "We have folks who have lived here forever and people who have just moved in. We are not like Sierra Madre, where they want to keep things as they are."[223]

Monrovia

The former home of muckraker Upton Sinclair, Monrovia is a 13.7 square mile city of tree-lined streets and older houses. In the middle-class city of 36,929 citizens, the median household income in Monrovia is $45,375, and the current median home price of $363,500, up by 28% in the last year.[224] Similar to neighboring cities, Monrovia borders the Angeles National Forest on the city's north side. Due to this close forest contact, Monrovians often sight black bears in their parks and neighborhoods.[225]

On July 11, 2000, the Monrovia population voted for Measure B to buy property in the foothills to preserve it as open space. Monrovia is the only San Gabriel foothill community to vote for such a tax. Citizens approved a tax on themselves to raise $10 million to buy roughly 600 acres of hillside property. Part of the funds went to buy 50 acres that had been approved in the late 1990s for a development that was fairly controversial in the city. At

[219] See http://www.city-data.com/city/Arcadia-California.html.
[220] City of Arcadia Website; Also see http://www.wemweb.com/traveler/towns/33arcadi/history.html.
[221] Interview with Joe Lambert, September 21, 2003.
[222] See http://geology.isu.edu/geostac/Field_Exercise/topomaps/slope_calc.htm.
[223] Interview with Joe Lambert, September 21, 2003.
[224] California Association of Realtors, August 2003 data. See http://www.car.org/index.php?id=MzI1MjU=.
[225] Geoff Kelly, "Monrovia is Rooted in Nature and in Family", LA Times article, June 22, 2003.

present, most of the Measure B funds have already been spent acquiring land, but citizens continue to advocate for the town to buy many more hillside parcels.

As the town has sought to buy up land, developers continue to find opportunities in Monrovia. "Lots that developers wouldn't have looked at a few years ago do pencil out now," stated Monrovia Associate Planner Barbara Lynch. However, "the people in Monrovia are anti-hillside building."[226] Thus, the city government finds itself in the middle. Groups of citizens voicing opposition to hillside development attend all public meetings on new developments, and the city attempts to address their concerns in the environmental impact reviews of the proposed properties. "The city council is reasonable – they understand property rights, but they also love Monrovia and our hillsides," affirmed Lynch. "It turns into a balancing act."[227]

Bradbury

"If you have to ask how much it costs, you can't afford to live here,"[228] according to City Planner David Breyer. Bradbury is a tiny, wealthy 1.9 square mile town of 855 residents and 311 homes. The community is completely residential and is often described as a large homeowners' association; absolutely no stores or businesses may locate in Bradbury. Instead, the town is predominantly comprised of multimillion-dollar mansions and horse farms, and most homes are located within two gated communities. The town was incorporated in 1957 to preserve its exclusive, rural atmosphere of sprawling estates and mountain trails. It has had almost no growth since 1970. The median household income is $100,454 and the median home price of $1,067,500 only trails three other California cities: Malibu, Laguna Beach, and Palos Verdes Estates.[229] The only so-called affordable housing in town consists of $400,000+ guesthouses on the property of large estates, emphasized Breyer.[230] Contested elections are rare in Bradbury.

Only about 300 acres of undeveloped land remains in Bradbury's foothills. This land would be difficult to develop within the regulations of the town's stringent Hillside Ordinance because of its steep slopes, ridgelines, and riparian habitat. Bradbury also has a strict zoning code to safeguard its estate character, which calls for one unit per ten acres in almost all undeveloped hillside territory.

Bodkin and Kissick, the owners of 200 of the remaining foothill acres in Bradbury, wish to develop their land. However, even if they were able to find a way around its environmental constraints, they could only develop a maximum of twenty custom homes. "The infrastructure they would have to provide to develop the site would not make development a financially successful venture," asserted Breyer. "But if the property had been in a neighboring city, it would likely have already been developed."[231] Neighboring towns do not have the same zoning laws restricting density, and the surrounding hillside has indeed been

[226] Interview with Barbara Lynch, September 21, 2003.
[227] Id.
[228] Interview with David Breyer, October 12, 2003.
[229] California Association of Realtors, August 2003 data. See http://www.car.org/index.php?id=MzI1NDI=.
[230] Interview with David Breyer, October 12, 2003.
[231] Id.

developed more densely in Monrovia and Duarte. Even the moderate hillside in Bradbury is zoned for one unit per five acres, making subdivision nearly impossible since most land has already been developed to this maximum. The only development in the last decade in Bradbury has been eight units on five acres each of moderate hillside land.

Duarte

Duarte is an ethnically diverse, 6.8 square mile foothill town of 21,486 residents that incorporated in 1957. In Duarte, the median home price is $252,000 and the median household income is $50,744. The city is home to a world-famous cancer research institute, the City of Hope Medical Center.

The city has a Hillside Ordinance to regulate development in the foothills because in the 1970s and 80s, "developers leveled whole hills and filled in canyons to build 300 units,"[232] according to Duarte Associate Planner Jason Golding. Developers are still interested in the hillsides, but the city now has more stringent policies regulating them. For example, over the past five years a 39-acre property, Attalla Ranch, has been under review. The number of units has been reduced from 50 units to 15 over the years, and now the owner will donate 28 of the acres to the city as open space. A citizens group, "Save the Foothills" opposed Attalla ranch originally, but now that the density has been reduced, the group is less active.

Duarte city officials worry that turning down development may land the city in court, as it has in surrounding hillside communities. "The city might have to pay half a million for rejecting development," stated Golding. "If the city has to pay a big lawsuit, it affects everyone because the community has limited financial resources."[233] Community members attempted to pass a measure supporting a city tax similar to Monrovia to buy up and preserve hillside land, but the citizens voted it down. At present, 53% of town square footage is not developed because it is government parkland or is steep hillside terrain. However, the steep foothill land could be developed in the future. Currently the city is attempting to gain state funding to buy 320 acres of hillside land that had been approved for the development of 48 homes by Pacific Communities, but the funding is uncertain.

Azusa

Azusa is the poorest and one of the most diverse communities in the San Gabriel foothills. The working-class city is over half Hispanic, and only 12% have obtained degrees from four-year universities. The median household income is $39,191 and the median home price is currently $234,500. Large industrial cavities in the Azusa mountainside, caused by the sand, gravel and cement mining industry over the last half-century, have created eyesores in portions of the city. Cheap housing built in the 1960s also contributes to the comparatively shabby look. However, the *San Gabriel Valley Tribune* recently characterized Azusa as "the most improved city in the San Gabriel Valley,"[234] as the city's median home prices have

[232] Interview with Jason Golding, October 5, 2003.
[233] Id.
[234] California Association of Realtors estimates, taken from City of Azusa website November 2003.

doubled since 1999 and the city's population of 44,712 has increased by 8% in the last decade.

The city is in the process of revising its general plan and development codes for four years and has shown unusual initiative to gain public participation in its revision process for a town of its size and income level. In order to obtain public input, it held multiple Saturday town meetings and hired facilitators, translators and childcare providers. An average of 175 citizens came to each meeting, and $1.8 million was budgeted to revise the general plan and zoning codes.

Most property that is available within city limits has been developed. The city council has supported and approved two recent hillside projects that will likely change Azusa's demographics: Mountain Cove and Monrovia Nursery. Mountain Cove is a partially completed, 327 home development built against the mountainside with values of $400,000 and above. The proposed mixed-use Monrovia Nursery development includes up to 1,250 residential units, an elementary school, and 50,000 square feet of commercial space. Additionally, the majority of the hillside land on this property, 150 acres, will be donated as open space to the city. Citizens voted down a prior development proposal for this land (the Rosedale plan for 1,700 units) in a 1999 referendum, so with the help of the City Manager's Office, the Monrovia Nursery property owner incorporated a number of citizens' meetings in the planning process and held a nationwide architecture contest to come up with the best, most acceptable design for the property. However, despite the conciliatory actions by the builder, this project is currently on hold since a citizen's group that disapproves of Monrovia Nursery is suing the city for not permitting a referendum election on the matter. Another referendum may follow.[235]

Azusa has no plans to raise money through city taxes to buy up its hillside land. According to Assistant City Manager Robert Person, "This is too poor of a community—our residents would not tax themselves for that lofty of an ideal. They are just trying to work their two jobs and put food on the table."[236] However, Azusa did buy 1.8 acres in the hillside with nearly half of a $1 million grant from the San Gabriel Rivers and Mountains Conservancy. The City Manager's Office hopes to buy up 100 acres around that initial site in order to create a park and will continue to apply for more grant funds.

Glendora

The attractive streets of Glendora, a 19 square mile city, are lined with trees and a mixture of cottages and estates. Somewhat less ethnically diverse than its neighbors, Glendora's population of 49,415 is 68% white. The median home price is $353,000 and the median household income is $60,013.

Open space comprises 54% of the total land area in the city, including 600-acre Glendora Wilderness Park. In the early 1970s, Glendora received matching funds from the Legacy of Parks fund through the US Department of Health, Education and Welfare to buy 250 acres of

[235] Love, Marianne. "Fate of Monrovia Nursery Project May Go to Voters," *San Gabriel Valley Tribune,* March 22, 2003.
[236] Interview with Robert Person, October 20, 2003.

hillside land for preservation. Because Proposition 13 had not yet been passed, the city was able to raise its half of the funds through temporarily raising the city's tax rate. Since then, the Glendora Hillside Conservancy has acquired or received through donations several different foothills parcels, so the town and conservancy together now own over 1000 acres of foothill land preserve. Recently, Glendora received partial funding of $2.5 million to buy 42 acres of hillside property through Proposition 40 money directed through the San Gabriel Rivers and Mountains Conservancy, and the city is attempting to raise the other half of the funding from the State Wildlife Conservation Board.

The city regulations on foothill development are not as rigorous as those in nearby cities such as San Dimas or La Verne.[237] For example, fire provisions, grading information, drainage and flora and fauna preservation are not well specified or are not addressed at all in their regulations.[238] "In general there is a lot of concern about the foothills,"[239] stated Deputy City Manager Culver Heaton, Jr. Thus, in 2002 a 20 member Ad Hoc Committee for the Preservation of the Foothills was formed to commission a study. The resulting recommendations "plug a lot of the loopholes on hillside development,"[240] said Heaton. They will likely be incorporated into the city's new general plan.

The city had pending a legal challenge to its hillside regulations recently by NJD, Ltd., a developer whose request to build Canyon Oaks, a 145 luxury home development in the foothills, was denied because it did not abide by city restrictions on density. "Our regulations would only allow 24 units on the property," stated Heaton.[241] NJD sued the city and lost on July 30, 2003. According to Wayne Leech, Glendora city attorney, "NJD's proposed development project would have caused substantial and irreparable environmental damage" and "disrupted hillside stability on certain steep parcels due to excessive grading."[242] NJD has proposed a revised plan that is now under review.

San Dimas

San Dimas, a city of 34,980 people and 15.5 square miles, has a quaint, western-themed downtown area. The median home price is $370,000 and the median household income is $62,885. The city general plan designates 42% of land in San Dimas as open space, including parkland to the north and south of the town center.

In 1999, San Dimas adopted a strict plan to regulate development on its northern foothills to conform to its general plan goal of preserving the hillsides. The plan outlined specific "feasibility zones" on its foothills where more dense development is permitted. Within feasibility zones on slopes between 0-25%, density for development is zoned for 1 unit per 5 acres, whereas outside these zones, density is 1 unit per 20 acres. This very low allowable density hinders development of areas outside the feasibility zones. The developments in the

[237] Vacca, Joe. *Thesis: Hillside Development in the Foothills of the San Gabriel Mountains: In the Cities of Glendora, San Dimas, La Verne, and Claremont.* California State University, Northridge, CA. 2002. p.178.
[238] Id, on pp.128-178.
[239] Interview with Culver Heaton, October 12, 2003.
[240] Id.
[241] Id.
[242] City of Glendora Press Release: http://www.ci.glendora.ca.us/judge_foothill.html.

foothills are required to conform to the contours of the hillsides. According to Associate Planner Joe Vacca, In San Dimas, "although individual property rights within the foothills must be recognized, the priority between development and natural resource values is given to protecting the resource."[243]

Citizens support these measures. "Overall the town and citizens support large lots with single family homes, if any," said Vacca. "They are anti-high density and want the town to remain rural."[244]

Along with Glendora, San Dimas was also sued by NJD, Ltd., the developer of Canyon Oaks. In early 2003 San Dimas won the lawsuit, but NJD has appealed to the State Supreme Court. NJD wanted to build the Canyon Oaks development over more than 40 acres of land adjacent to their proposed site in Glendora, at a higher housing density than city regulations allow. The developer sued San Dimas for rejecting their plan, citing that the state-mandated environmental planning process was not followed correctly.

La Verne

In May of 1887, brass marching bands on the streets of Los Angeles and San Bernardino announced free train rides to the new town of "Lordsburg," later known as La Verne. The trains, sponsored by entrepreneurial town founder Isaac Lord, brought La Verne its first residents. La Verne, incorporated in 1906, is now home to 31,638 residents, 18 parks and the regionally-known University of La Verne. Town property and open space comprise 35% of land in La Verne, and the median household income is $61,326.[245]

The median home price of $359,000 has been increasing steadily. "Two years ago a family could purchase a town home for $100,000," stated Associate Planner Eric Scherer. "We don't want to shut any group out, but younger families trying to relocate here now have problems buying homes."[246] A main reason house prices are quickly increasing is because very little land is left to build on in La Verne. "Developers continue to look at our hillsides, thinking about developing the last remaining parcels,"[247] stated Scherer. However, La Verne has special foothill zoning in its strict Hillside Overlay Plan of 1992, which calls for a density of one unit per five acres in the northern hillsides. This makes development less profitable than in areas zoned for higher density.

A fair amount of development has occurred in La Verne in the last two decades; over 500 homes were built in La Verne's hillsides during this time. Currently, a proposal for the Live Oak Trails development of 10 to 20 homes on hillside land has drawn citizen protest. A conservancy group is trying to protect the open space there; however, the land is zoned for development so the city is going forward with the project.

---

[243] Vacca, Joe. Thesis, p.103.
[244] Interview with Joe Vacca, September 28, 2003.
[245] Vacca, Joe. Thesis, p.66; http://www.city-data.com/city/La-Verne-California.html.
[246] Interview with Eric Scherer, September 29, 2003.
[247] Id.

The town has also had legal challenges regarding hillside building from Lewis Homes in the early 1990s. Lewis Homes proposed the Marshall Canyon Estates and La Verne Heights developments at the same time as La Verne's Hillside Overlay Plan was developed, and it sued the city over the new restrictions on density. The town compromised with Lewis Homes and allowed them to build at a higher density than the new regulations allowed.

Claremont

The striking tree-lined streets, ivy-covered buildings and student population give Claremont the appearance of a New England college town. Due to the influence of town founders who were originally from New England, the local government was originally based on the town meeting format. Within the town's 14.14 square miles resides a population of 33,998, which has grown minimally in the last decade. Citizens from Claremont are moderately wealthy and well educated: the town's median household income is $70,647 and the median home price is $376,613[248]. Home of the seven Claremont colleges, more than 52% of the population holds at least a four-year college degree.

In the late 1970's, Claremont created one of the most innovative hillside development regulation plans in the San Gabriel Valley. No other cities bordering the San Gabriel Mountains have this type of plan. In this plan, city planners outlined a few areas of moderately sloped land for development, while forbidding any development on the great majority of hillside land. Ninety percent of Claremont's hillsides, 2,600 acres, are protected in this system. However, Claremont officials understood that the owners of the newly protected land were entitled to compensation. In order for these landowners to obtain the value for their land, they may sell "credits" from their property to the owners of developable hillside land. By obtaining credits, owners of developable land may build higher densities of housing than the normal Claremont hillside regulations allow. Credits on a property are designated through a formula that accounts for the slope of the land and the property acreage. After an owner sells his credits, the city may buy the land at a discount from him since it no longer holds value for development.

According to Claremont Principal Planner Belle Newman, this credit system was developed after a high-density hillside development, Claraboya, was built on formerly picturesque hillsides by "cutting off ridges, filling in valleys, and massively scarring the steep terrain. Claraboya was an eye-opener for the city council and for residents."[249] They did not want future developments to further destroy their foothills.

The first development to occur since the hillside regulations were created is Village Walk: 125 homes on 125 acres that was approved in 1992. The developer bought credits from surrounding hillside land in order to build at relatively high density, resulting in 1200 acres being sold to the city for $1.2 million to remain forever as open space. Although Claremont residents were initially pleased with the gain in preserved hillside land, "over the last ten years some people have become upset"[250] at the development of the 125 acres. Community

[248] California Association of Realtors, August 2003 data. http://www.car.org/index.php?id=MzI1NDI=.
[249] Interview with Belle Newman, September 22, 2003.
[250] Id.

members formed an organization, the Claremont Wildlands Conservancy, to preserve all the remaining hillsides from development.

Currently the city owns 1,500 acres of hillside land, and is in the process of acquiring 240 acres through a Proposition 40 grant of $1.3 million. "We are also trying to pursue another 400 acres of grant money through the Department of Fish and Game Wildlife Conservation Board, but at this point the funding looks unlikely for us,"[251] stated the Assistant City Manager Jim Lewis. Grant money from the Wildlife Conservation Board was largely spent a week before the October 2003 recall vote when former Governor Gray Davis rushed to approve two hefty land conservation deals for over $275 million, including the acquisition of Ahmanson Ranch in eastern Ventura County and part of the Ballona Wetlands in West Los Angeles.[252] Little funding remained after approving these large grants for other conservation projects in Southern California.[253] "If it does fall through, the Claremont Wildlands Conservancy will likely try to find other funding sources,"[254] affirmed Lewis.

Upland

Upland's population of 68,393 has grown moderately in the last decade. The majority of citizens are white, but 28% are Hispanic. The median home price has increased by 28% in the last year to $340,000 by August 2003.

The city is relatively flat in relation to its neighbors. "Upland does not really have any foothills", according to Senior Planner John Atwater, "so we do not have any guidelines or zoning specifically for hillsides."[255] However, the planners' view is not shared by all. Upland Resident Melanie Ingram said her own property was on hilly land and that Upland officials were simply ignoring reality. "I'm at 1,800 feet above sea level," she said. "I live in the foothills." All the hillside land is above Upland, in San Bernardino County territory. Much of this land is already developed, as the county typically has less stringent development guidelines than those of the local municipalities in the San Gabriel foothills.

Atwater describes the city government, including the city council and the planning commission, as pro-development. In fact, developers and others involved in real estate have contributed substantial donations to recent successful Upland city council campaigns. In September 2002, the council approved the Colonies, a 450-tract development on flat land surrounding an abandoned sand and gravel operation. Part of the area had been used by the county as a flood control basin via a 1929 easement, but in late August 2003, the Colonies won in court to require the county to spend as much as $200 million to make improvements to the flood basin in order to increase its capability of handling large amounts of storm runoff. This dispute is extremely important to Upland as the flood control basin in its current state of disrepair could to lead to flooding in the lower sections of the city during heavy rains.

[251] Interview with Jim Lewis, September 27, 2003.
[252] Bustillo, Miguel. "Davis Scrambles to Sign Land Deals," Los Angeles Times. September 20, 2003.
[253] Id.
[254] Interview with Jim Lewis, September 27, 2003.
[255] Interview with John Atwater, October 3, 2003.

Rancho Cucamonga

Rancho Cucamonga, a 38 square mile city populated by 146,700 people, is named for the Kucamongan Native Americans who lived in the area since 1200AD.[256] Rancho Cucamonga is much larger in size and population than the other foothill cities and it is growing rapidly: the population increased by 45% between 1990 and 2003. The city's median household income is $65,582 and the median home price is $305,000.

The Rancho Cucamonga City Council is generally supportive of development, and therefore the city currently has a large amount of construction inside city limits. In fact, Council races are funded in large part by businesses and individuals involved in development. Due to Rancho Cucamonga's favorable policies for developers, a number of owners of hillside property in county land above the city boundaries have annexed their properties into the city over the past decades, in order to expedite development on their land.

In 1992 the city adopted a specific plan for the county area from which most land is annexed, called the Etiwanda Fan, since they needed common regulations for development there. However, these regulations are not always followed; negotiations favoring the developer can take place if he has already started the development process with the county. In recent years, roughly 2,500 units have been approved and built in the Etiwanda Fan annexation area, according to Larry Henderson, principal city planner.

No land in the city is zoned for open space except natural drainage features, according to Alan Warren, Rancho Cucamonga Associate Planner, and the city has no plans to raise money or apply for grants to preserve land in the foothills. "People here don't have a great love of open space—they like the open space next to them," stated Henderson. Instead, land in Rancho Cucamonga is mainly preserved due to state and federal laws protecting endangered species and their habitat, such as the horny toad, the kangaroo rate, and the gnatcatcher. To abide by these laws, the city has a system whereby developers wishing to develop land that is home to these endangered species buy a required amount of land with similar species in another area of the city and donate it as open space.

[256] See http://www.ci.rancho-cucamonga.ca.us/index_res.htm.

Publications and Projects

Reports

Political Reform That Works: Public Campaign Financing Blooms in Tucson (CGS 2003).

Public Financing of Elections: Where To Get The Money? (CGS 2003).

Public Financing Laws in Local Jurisdictions (CGS 2003).

Electronic Filing and Disclosure Update (CGS 2002).

A Statute of Liberty: How New York City's Campaign Finance Law Is Changing the Face of Local Elections (CGS 2002).

Alluvial Amnesia: How Government Plays Down Flood Risks in the Push for Development (CGS 2002).

Dead on Arrival? Breathing Life Into Suffolk County's New Campaign Finance Reforms (CGS 2002).

On the Brink of Clean: Launching San Francisco's New Campaign Finance Reform (CGS 2002).

Eleven Years of Reform: Many Successes, More to Be Done: Campaign Finance Reform in the City of Los Angeles (CGS 2001).

Access Delayed Is Access Denied: Electronic Reporting of Campaign Finance Activities (CGS 2000).

Campaign Money on the Information Superhighway: Electronic Filing and Disclosure of Campaign Finance Reports, CGS/National Resource Center for State and Local Campaign Finance Reform (CGS 1996-1999).

Promises to Keep and Miles to Go: A Summary of the Joint Meeting of the California Citizens Commission on Higher Education and the California Education Roundtable (CGS 1997)

.

Books

Investing in Democracy: Creating Public Financing of Elections In Your Community (CGS 2003).

***Affordable Health Care for Low Income Californians*:** Report and Recommendations of the California Citizens Budget Commission (CGS 2000).

***Toward a State of Learning: California Higher Education for the Twenty-First Century*,** Recommendations of the California Citizens Commission on Higher Education (CGS 1999).

***A 21st Century Budget Process for California**:* Recommendations of the California Citizens Budget Commission (CGS 1998).

***A State of Learning: California and the Dream of Higher Education in the Twenty-First Century*,** California Citizens Commission on Higher Education (CGS 1998).

Opportunity Through Technology: Conference Report on New Communication Technology and Low-Income Communities (CGS/Connect LA 1997).

A Shared Vision: A Practical Guide to the Design and Implementation of a Performance-Based Budget Model for California State Health Services, California Citizens Budget Commission (CGS 1997).

The Price of Justice: A Los Angeles Area Case Study in Judicial Campaign Financing, California Commission on Campaign Financing (CGS 1995).

Reforming California's Budget Process: *Preliminary Report and Recommendations*, California Citizens Budget Commission (CGS 1995).

California at the Crossroads: Choices for Health Care Reform, Lucien Wulsin, Jr. (CGS 1994).

Democracy by Initiative: Shaping California's Fourth Branch of Government, California Commission on Campaign Financing (CGS 1992).

To Govern Ourselves: Ballot Initiatives in the Los Angeles Area, California Commission on Campaign Financing (CGS 1992).

Money and Politics in the Golden State: Financing California's Local Elections, California Commission on Campaign Financing (CGS 1989).

Money and Politics in Local Elections: The Los Angeles Area, California Commission on Campaign Financing (CGS 1989).

The California Channel: A New Public Affairs Television Network for the State, Tracy Westen and Beth Givens (CGS 1989).

Update to the New Gold Rush, California Commission on Campaign Financing (CGS 1987).

The New Gold Rush: Financing California's Legislative Campaigns, California Commission on Campaign Financing (CGS 1985).

Media Projects

Connect LA: A bi-lingual, web-based system of information and services for low-income users and communities of color (CGS 1998-present) (www.ConnectLA.org).

Video Voter: A new system of interactive video information on candidates in federal, state and local elections (CGS 2001-present) (see www.cgs.org; www.videovoter.org).

Digital Democracy: An email-based system of communication between citizens and elected officials on public policy issues (CGS 2002-present) (see www.cgs.org).

PolicyArchive.Net: A new web-based archive of public policy research (CGS 2002-present).

The Democracy Network: An interactive web-based system of political information for elections in California and other states (CGS 1996-2000) *(www.dnet.org)*.

The Democracy Network: An interactive video-on-demand system of candidate information on Time-Warner's Full Service Network in Orlando, Florida (CGS 1996).

City Access: Report on the Design of a New Interactive System of Local Government (CGS 1995).

The California Channel: A satellite-fed, cable television network providing over six million California homes with gavel-to-gavel coverage of the state legislature (CGS 1989-1993) (www.CalChannel.com).

LOSING GROUND

Hidden Subsides and Fragmented Governance Encourage Homebuilding in Hazard-Prone Foothills

Losing Ground reaches past mesmerizing pictures of fires and floods to reveal the integral role of taxation and subsidies in supporting home construction on geologically unstable mountainsides in California's San Gabriel Mountain Foothills.

Losing Ground explains: why officials approved a $48 million high school in a San Bernardino County floodplain, despite warnings from the Governor's Office of Emergency Services; why Los Angeles County hides an annual budget line item of $67 million to prepare for and fight wildfires; and why California stretched legislation designed to rebuild riot-scarred inner-city communities to provide wildfire insurance to affluent hillside homeowners.

Losing Ground recommends that the California state government:

- Audit foothills subsidies and consider whether taxpayers should support high-end home construction in hazardous regions.
- Form alluvial districts in mountain canyon flood zones to investigate and manage flooding dangers.
- Require developers and property owners to shoulder more firefighting costs in foothills areas.
- Phase out subsidies for low-cost insurance to homeowners in affluent neighborhoods.
- Allow local governments to form joint-authority districts to plan for projects with region-wide fiscal, environmental and safety impacts.

Center for Governmental Studies
10951 W. Pico Blvd., Suite 120
Los Angeles, CA 90064-2184
(310) 470-6590 ▪ (310) 475-3752 fax
www.cgs.org ▪ center@cgs.org