

DRAFT 3
City of Goleta, California
May 24, 2004

BACKGROUND REPORT NO. 26

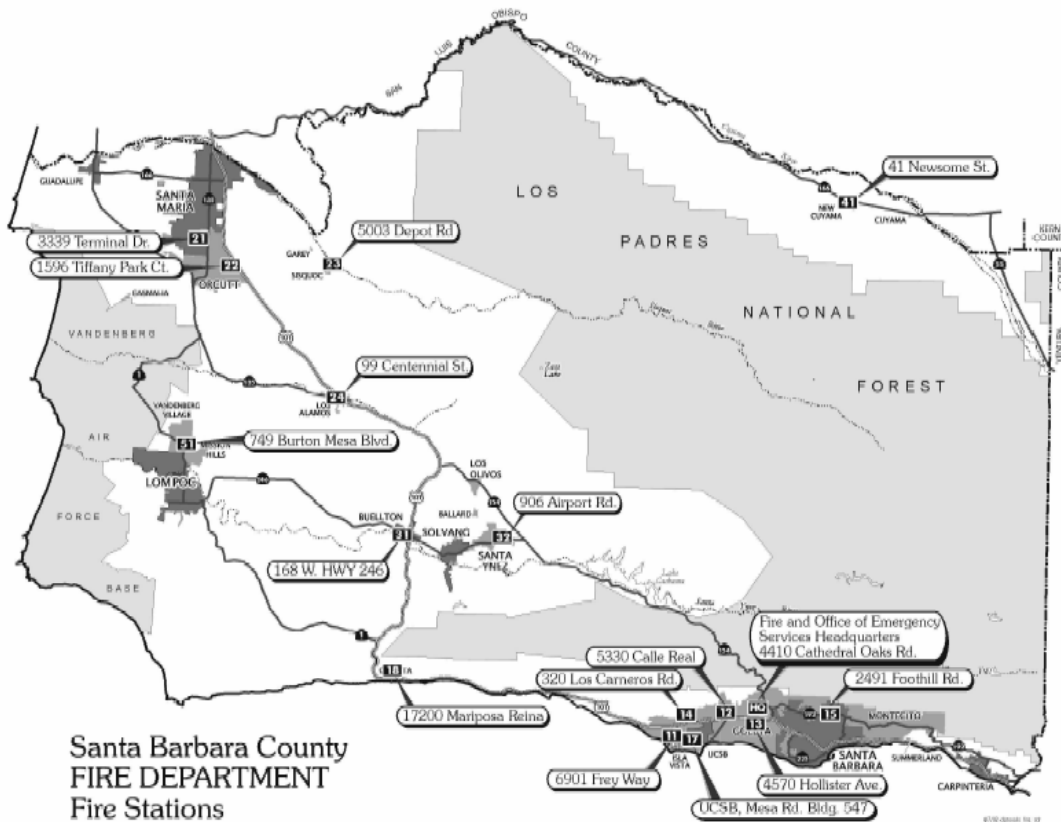
Fire Services
City of Goleta, California



Photo courtesy Santa Barbara County Fire Department

BACKGROUND

The City of Goleta receives fire protection and other emergency services through the Santa Barbara County Fire Department as part of its coverage for the Goleta area. The County Fire Department was established in 1926 and serves areas throughout Santa Barbara County.



Originally, the department primarily responded to brush and grass fires. But, over time, the department's responsibilities have greatly expanded. Today, the County Fire department is on call 24 hours a day, every day of the year. It is now an "all risk" department which includes paramedics, emergency medical technicians, and trained personnel who are experts in various rescue techniques including confined space, trench and rope rescues, water and canine rescues, as well as the handling and containment of hazardous materials and "SWAT" situations. Its mission statement says the department is there "to serve and safeguard the community from the impacts of fires, emergency medical, environmental emergencies and natural disasters" which they will accomplish "through education, code enforcement, planning and prevention, emergency response, and disaster recovery."



Photo courtesy of Mike Schlags

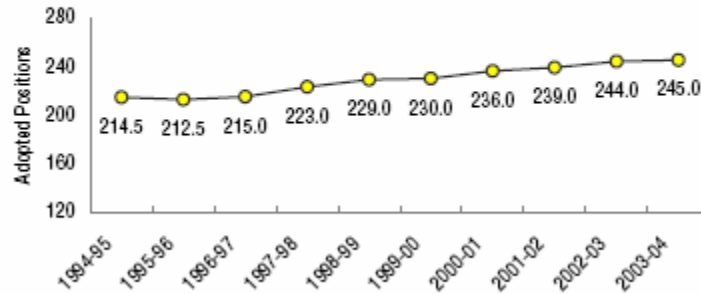
ORGANIZATION

The County Fire Department is headed by the Fire Chief, John Scherrei. The Fire Marshal is Tom Franklin and the Deputy Fire Marshal for the City of Goleta is Randy Coleman, who also acts as the liaison between the city and the fire department. Kate Sulka is the supervisor of the Hazardous Materials section. The Department's headquarters are located at 4410 Cathedral Oaks Road in the unincorporated area of Goleta just to the west of Hwy 154. The department's Public Information Officer and the Office of Emergency Services are located there, as well.

In addition to the headquarters, the Department is currently responsible for the operation and staffing of fifteen fire stations throughout the County and one office in Buellton for the Hazardous Materials Unit. Eight fire stations are in the north county and seven are in the south county, including three within the boundaries of the city of Goleta. Other areas on the South Coast are protected through individual fire departments, including the Santa Barbara City Fire Department, the Montecito Fire District and the Carpinteria-Summerland Fire District, although all the districts are connected through mutual aid agreements.

The Fire Chief is appointed by the Board of Supervisors. Reporting to the Fire Chief are the personnel in the three divisions in the department – the fire prevention division, the support services division and the operations division.

STAFFING TREND



SERVICES

Fire Prevention Division

The fire prevention division is responsible for inspection services, planning and engineering, vegetation management, investigations and enforcement and monitoring the use and cleanup of hazardous materials. This division carries out inspections and issues permits for a wide variety of businesses, including those needed for community care licensing and oil and gas facilities. A representative from this division is a member of the County's Systems Safety and Reliability Review Committee (SSRRC) which meets each month to review the permit compliance of energy facilities. The fire prevention division also investigates the cause and origin of fires.

This division includes the Hazardous Materials section which monitors companies that have Hazardous Business Plans and the cleanup of Hazardous Materials sites. This also includes the Site Mitigation Unit (SMU) and the Leaking Underground Fuel Tank (LUFT) program.¹

This office also coordinates the statewide "CUPA" program initiated in 1993 which combines the requirements of five agencies – the California Environmental Protection Agency (CAL/EPA), the Department of Toxic Substance Control (DTSC), the Governors Office of Emergency Services (OES), the Office of the State Fire Marshal (OSFM), and the State Water Resources Control Board (SWRCB). The California Environmental Protection Agency designated the Santa Barbara County Fire Department to manage the program which allows for consolidation, coordination and consistency between the programs, and unified compliance and enforcement through departmental inspections.

¹ Hazardous materials are addressed in more detail in the background report on Hazardous Materials.

The County Fire Department publishes a “CUPA Newsletter” on a regular basis which is available through the department’s website. It contains information on the handling, disposal or recycling of a variety of items, including hazardous materials. It also provides answers to frequently asked questions and contact phone numbers for various state offices to obtain more detailed information.



Photo courtesy of Mike Schlags

Support Services Division

The support services division handles training, logistics and information technology. Fire division staff must meet mandated certification requirements and skill levels in certain areas of expertise and the support services division ensures that training and educational materials are provided to meet these requirements.



Photo courtesy of Mike Schlags.

The Logistics section manages all equipment, safety gear and other supplies that are needed for both day to day and special incident situations. Personnel in Information Technology give support on all issues to do with computer maintenance and program development.

The Fire Department’s educational component is handled by the public information office which is responsible for disseminating information to schools, businesses and residences, scheduling demonstrations of the fire safety trailer and responding to requests from the media. This section is also responsible for the 24 hour on-call service.

Operations Division

The operations division is headed by a number of battalion chiefs. This division is responsible for the operations and maintenance of all the fire stations. They also take care of the department's heavy equipment as well as the use of the helicopters. The operations division contains personnel who can perform water rescue, search and rescue and are trained to respond to incidents involving hazardous materials.

All personnel at every fire station have the qualifications, equipment and capabilities to fight oil fires, Haz Mat incidents and railroad incidents. The Haz Mat team is staffed 24 hours a day and every firefighter has Hazardous Materials First Responder Operational training. Numerous personnel have specialist qualifications.

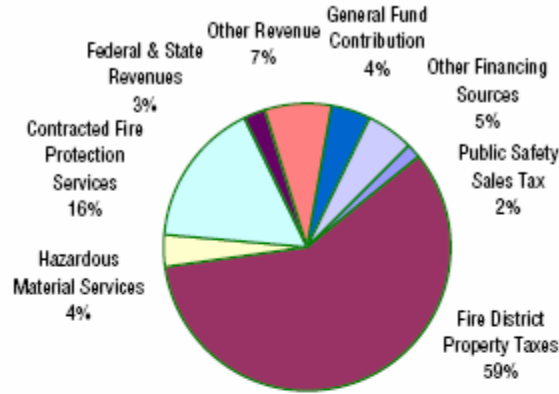


Isla Vista Surf Rescue

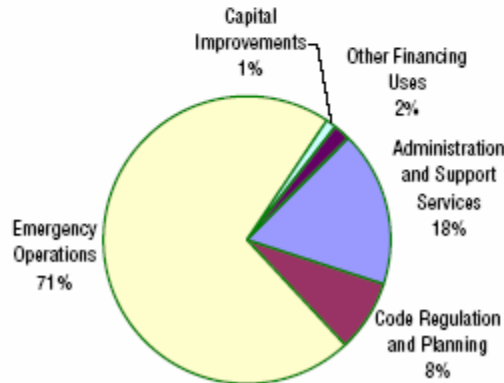
When a structure fire is reported, the department's initial response includes a minimum of three engines, one truck company and one battalion chief. Additional equipment is dispatched as determined by the "report on conditions" of the incident by the incident commander.

FUNDING

SOURCE OF FUNDS



USE OF FUNDS



The City of Goleta does not contract with the County Fire Department to provide services to the City, as the City does with the County Sheriff's Department. Fire and emergency services are funded by a special purpose district administered by the County. Fire fees for new development are now at \$532 per equivalent dwelling unit in the Goleta area. Unlike other types of development impact fees, fire fees accumulated from new development within the City of Goleta do not come to the City, but instead go directly to the Fire District.

The current fire mitigation fee amount was determined in a study performed by David Taussig and Associates in 1998. In addition, the study identified the need for one additional fire station in the Goleta area at a cost of \$2,296,000 (1998

dollars) for a two acre site and a 6,800 s.f. building. This figure did not include the cost for equipment or personnel.

FIRE STATIONS IN THE GOLETA AREA

There are six fire stations in the Goleta area. Three are located within the Goleta city limits, another one is in the unincorporated area of east Goleta, another is on the UCSB campus and one is at the Santa Barbara City Airport. The fire station at the airport is staffed by Santa Barbara city firefighter personnel and only responds to fires on airport property south of Hollister Avenue. They do not cover the airport property north of Hollister Avenue. County fire staff are responsible for that area. In addition, County firefighters may be called upon to supplement Santa Barbara city fire staff in the event of an airport emergency.

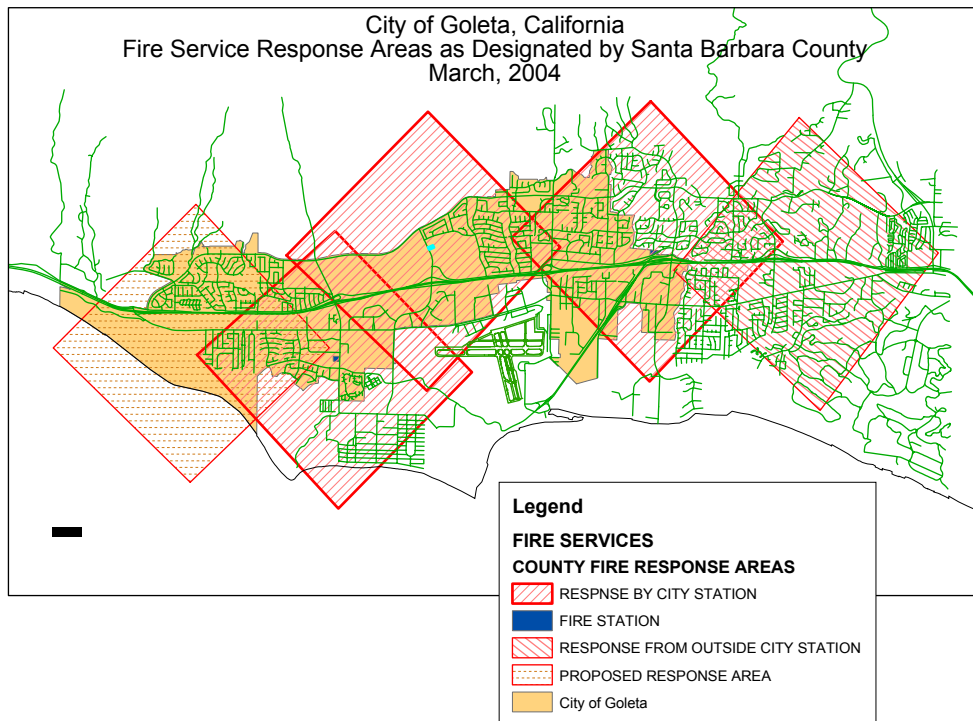
The fire station on the UCSB campus only provides service to the campus and does not respond to County Fire Department calls. The ambulance, staffing and station is owned and operated by UCSB.

The station on Hollister Avenue, east of Turnpike Road, is the only fire station in the unincorporated area of Goleta since the station that was once located at Fire Department headquarters on Cathedral Oaks was closed some years back. The Hollister station, as well as the three stations within the Goleta city limits, respond to all types of calls as needed throughout the Goleta area.

Five Minute Response Time

One widely used method of measuring effective fire and emergency medical service coverage in an urban area is ascertaining what areas can be reached by each fire station within approximately five minutes. If these areas are then plotted on a map (next page) it is easy to see where coverage areas may overlap or are lacking. If 100% coverage is not currently being achieved, then plans and policies can be initiated to redress the problem.

The five minutes includes the time dispatch receives the 911 call and dispatches the equipment, then one minute for equipment to respond and three minutes to travel to the destination. Clearly, the areas that can be reached within five minutes will vary depending upon the time of day, street patterns, weather, level of traffic and any other ongoing emergencies. However, under typical conditions, the estimated five minute response zones are still considered to be a useful planning tool.



Another measure of service level is known as “reflex time.” Reflex time is the amount of time which elapses between the start of a fire and when the first water, or other extinguishing agent, is put on the flames. Reflex time includes the response time already mentioned.

In 1998, the County of Santa Barbara Planning Department plotted estimated five minute response areas for fire stations in the Goleta area as part of the environmental assessment for the Goleta Growth Management Plan. That assessment indicated that most of the core areas in the Goleta Valley were



Photo courtesy of Mike Schlags

adequately covered, except for the most western area of Goleta which included the El Encanto/ Winchester Canyon area and the Bacara/Sandpiper Golf Course area. There were also a few smaller areas outside the demarcated zones, including the South Patterson/More Mesa area and some of the most northerly neighborhoods above Cathedral Oaks between Fairview and Patterson Avenues.

Station #11

Station #11



Photo courtesy of Santa Barbara County Fire Department

Of the three fire stations within the Goleta city limits, two are north of Highway 101 and one is south. Fire Station #11 is located at 6901 Frey Way, off of Storke Road south of Hollister Avenue. There are 6 personnel assigned to each shift and station equipment includes three engines and three trucks. In 2002, station eleven responded to 95 fires, 417 medical emergencies and 783 “non-fires”, which is a term that is used to cover a variety of calls including false alarms, bomb scares, vehicle accidents, public assistance and animal rescues. For the first six months of 2003, the station responded to 48 fires, 191 medical calls and 335 non-fires. The station building is approximately 7,000 square feet located on a two acre site.



Photos Courtesy of Mike Schlags

Station eleven is the nearest fire station to the Venoco oil and gas processing facility. In case of an incident at the facility, the station’s normal response time is three to five minutes.

Station eleven is also the home of the “100’ Truck Company” which responds County-wide if needed. This large truck with a 100 foot ladder allows firefighters to reach the exteriors of multi-story buildings for any type of emergency. This is the only truck company of its type in the County Fire Department. Historically, the County has not allowed multiple storied buildings (above two) that would create the need for additional staffing and equipment. However, that policy has gradually changed.

The Fire Department has significantly reduced the need for such equipment on existing multi-storied buildings. Typically, building fires are now fought aggressively from the inside of the structure in an effort to reduce fire loss and increase rescue potential. This has been accomplished through a combination of aggressive fire prevention policies, strict building standards and ongoing education and training for all fire department personnel.

Station #12

Station #12



Photo courtesy of Santa Barbara County Fire Department

Station #12 is located at 5330 Calle Real, between North Kellogg and Patterson Avenues. This station has three personnel per shift and equipment includes one engine, one brush truck and one off-road four wheel drive vehicle. In 2002, Station twelve responded to 38 Fires, 346 Medical calls and 826 Non-Fires. For the first half of 2003, the station went out on 20 calls for Fires, 134 Medical calls and 306 Non-Fires. This station is the most recently built in the Goleta area and has a 6,800 square foot building on a 1.8 acre site.

Station #14

Station #14



Photo courtesy of Santa Barbara County Fire Department

Station #14 is located at 320 N. Los Carneros Road, at the entrance to the Stow House historic park. The station is about 2,500 square feet on about two acres. The station has three personnel per shift and equipment consisting of one engine, one brush truck and one off-road four wheel drive vehicle. In 2002 this station responded to 16 Fires, 104 Medical calls and 276 Non-Fires. In the first six months of 2003, the station went out on 5 Fires, 54 Medical calls and 113 Non-Fires.

Proposed Additional Goleta Fire Station

Prior to the incorporation of the City of Goleta, the County Fire Department had expressed an interest to the County Planning Department in locating a site in the Ellwood area of western Goleta to build an additional fire station, (proposed #10.) A one to two acre site along Hollister on the eastern side of the Santa Barbara Shores Park property was mentioned as a possible location for such a facility. A station in this vicinity would provide service coverage to an area which is currently outside the plotted five minute response zones.

After incorporation, some city representatives expressed concerns about locating a new fire facility on the park property because of the complications it presented to certain aspects of the Ellwood-Devereux Plan, particularly the proposed "land swap". The County Fire Department agreed to look for alternate sites in the same area of Goleta. Currently, the Fire Department has identified a possible new location adjacent to the proposed Cathedral Oaks/Hollister Avenue bridge realignment south of the railroad tracks and on either the north or south side of Hollister Avenue. The issue is still being discussed between city of Goleta and fire department representatives.

WILDLAND FIRE

Large wildland fires have occurred, on average, at least once per decade since the 1920s in Santa Barbara County.² These fires pose a significant risk for people living on the south coast, both for potential loss of life and for property damage. High fire hazard areas mapped for the Goleta area delineate all properties north and west of Cathedral Oaks Road, north of Foothill Road, the area between Turnpike and Hwy 154 north of Hwy 101 and all of Hope Ranch. The high fire hazard designation is given to these areas due to the presence of flammable vegetation, topography, limited access and limited water that is available for fire protection.



Painted Cave Fire, June 27, 1990 Photo Courtesy of Santa Barbara County Fire Department

However, mapped high fire hazard areas are not the only areas that could be in the path of a wildland fire, as the area's recent fire history has shown. Although some fires have been confined to the "backcountry" areas of the Los Padres National Forest, the most recent fires have burned down from the foothill areas and into more densely populated areas.

Twice in the last twenty-five years wildland fires have even "jumped" Highway 101. Both the Eagle Canyon (1979) and Painted Cave (1990) fires burned

² Sweetwater Canyon 8/23, Oso Canyon 9/23, Indian Canyon 8/33, San Marcos 8/40, Refugio 9/55, Coyote 9/64, Romero 10/71, Sycamore 7/77, Eagle Canyon 9/79, Painted Cave 6/90.

thousands of acres of land, including properties on the south side of Hwy 101 in areas not previously determined to be in a “high fire hazard” area, demonstrating how dangerously unpredictable the path of a wildland fire can be given strong (usually “sundowner”) wind conditions. On those occasions there was minimal loss of life, but a significant loss of structures, usually single family homes. In the case of the most recent wildland fire in our area, the Painted Cave Fire in June of 1990, one life was lost and 673 buildings were destroyed, causing \$250 million in total damage.³

The problem of wildland fires destroying increasing amounts of urban acreage over time has been the subject of recent research by several geographers from UCSB and Cal Poly San Luis Obispo. Their paper entitled “Historical Santa Barbara up in flames” identified seven fires that burned portions of the south coast urban area between 1929 and 1991. Their study examined the historical relationship between the growing urban area on the south coast and the wildfires in the Los Padres National Forest, an area covered primarily by fire-adapted chaparral and coastal sage scrub. These two areas have an extensive interface throughout the south coast region. The study made several important discoveries:

- Periodic wildfires impact the region by temporarily removing flora and fauna from the landscape, increasing the local rates of erosion, decreasing air and water quality and destroying public and private property.
- The dollar amount for damage to infrastructure and property now runs into the hundreds of millions of dollars.
- Fire suppression has not altered the likelihood of large fires over time, improved suppression techniques being offset by large increases in ignitions due to human population growth in the region.
- Short fire intervals are identified as an ecological concern.
- Some sort of human activity or structure caused five out of the seven fires that eventually burned into the urban area. It is likely that the “unknown” causes were also due to humans--statistics which demonstrate that, whatever their intent, humans influence the wildfire system which subsequently impacts the urban area.
- Improved fire suppression efforts, e.g. aerial firefighting techniques, are hampered by long, complex urban-wildland interfaces.
- The South Coast urban area is not changing its behavior in response to the fires by allowed burnt areas to be rebuilt and continually growing outward and extending the urban/wildland interface.⁴

³ “Historical Santa Barbara up in flames: A study of fire history and historical urban growth modeling.” Goldstein, Candau and Moritz. Paper given at the 4th International Conference on Integrating GIS and Environmental Modeling, Banff, Alberta, Canada, September 2-8, 2000.

⁴ In one case, one urban area burned over twice, once in 1955 and again in 1990 and was rebuilt both times.

Fire name	Fire Date	Cause	Total Fire Size (ha)	Total Urban Extent of Santa Barbara	Total Urban Extent burned by wildfire (ha)
Refugio	1955-09-06	Burning Building	34306.42	3295.17	0.27
Polo	1964-03-07	Powerline	236.75	4125.69	1.89
Coyote	1964-09-22	Unknown	27114.90	4125.69	8.19
Romero Canyon	1971-10-06	Incendiary	5883.53	7469.73	1.71
Sycamore Canyon	1977-07-26	Kite on Powerline	325.78	9040.59	139.68
Eagle	1979-09-18	Unknown	1833.29	9129.06	51.12
Painted Cave	1990-06-27	Wildland Arson	1726.90	10185.48	368.91

Table 1. Results from intersecting the backcasted urban extents of Santa Barbara with the historical wildfires of the LPNF.⁵

The study concluded by saying that “With a growing urban extent over time and the expanding urban-wildland interface that accompanies it, we see a much greater increase in the percentage of urban extent burning than one would expect. This trend appears to be one of exponential growth, in fact.”⁶

The danger inherent in the growth of the urban/wildland interface is exemplified in western Goleta. If the area which burned in the 1979 Eagle Canyon fire were to burn again, both the Winchester Commons housing development and the Bacara Resort would be in jeopardy. The property which they now sit upon burned in the Eagle Canyon fire, but because those properties were vacant at the time, there was no loss of life or structures.

The County Fire Department responds on all calls concerning wildland fires in the Goleta area. In addition, the Department has a mutual aid agreement with the United States Forest Service (USFS). The agreement states that the Forest Service will provide fire protection services to a specific area in the Los Padres National Forest lands known as the “Red Zone” during the high fire hazard season which generally runs from mid-May to mid-October. The Forest Service stations are not fully manned during the off-season and so do not provide services then. Also, the USFS is not equipped to fight structural fires or to provide emergency medical services. They may only fight forest fires and are prevented from protecting property by presidential executive order.

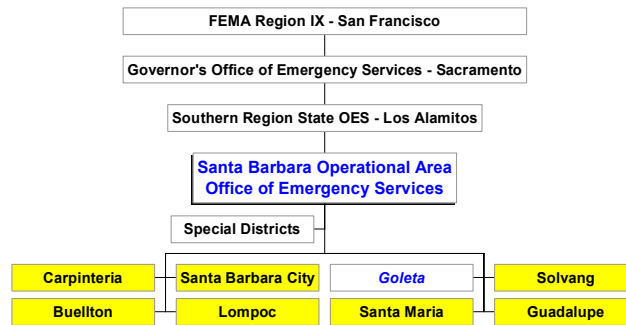
⁵Table taken from “Historical Santa Barbara up in flames”, page 4.

⁶ Ibid., page 6.

Both the County and the City of Santa Barbara have aggressive fire prevention programs. The City of Santa Barbara Fire Department publishes a brochure entitled “Wildfire Protection” and the County Fire Department has an extensive “Fire Prevention” section on their website. Both jurisdictions cover similar points to do with fire prevention – vegetation management, fire resistant landscaping, specific fire safe building requirements including water storage, interior sprinklers and fire retardant roofing materials and minimum roadway widths. There is also information on what to do to prepare for evacuation should a wildland fire occur.

DISASTER RESPONSE

Chief Scherrei is the Mutual Aid Coordinator for Santa Barbara County. This means that he and other County Fire Department personnel coordinate all requests for assistance from all jurisdictions within the County that may be needed for local emergencies and for statewide and national emergencies. Bruce Carter heads up the Santa Barbara Office of Emergency Services which is located at Fire Department headquarters on Cathedral Oaks Road.



The Santa Barbara Operational Area Office of Emergency Services (OES) is part of a federal (FEMA) and State Emergency Services program. All of the cities in the county and the special districts connect to these services.

All jurisdictions in the County use the Standardized Emergency Management System (SEMS) Multi-Hazard Functional Plan (MHFP). This system performs a threat assessment for various types of major emergencies and outlines a plan to respond to each type of incident. Emergencies covered in the plan include:

- Major earthquakes
- Flooding
- Landslides
- Tsunamis
- Wildfire

- Major transportation incidents involving multiple vehicles and bus, rail and air crashes
- Diablo Canyon nuclear plant emergency
- Hazardous Materials incidents involving commercial vehicles, rail and air transportation, pipeline and fixed facilities and clandestine dumping
- Other types of nuclear emergencies
- Acts of terrorism

The Office of Emergency Services coordinates meetings between all of the city managers within the County to develop these plans.

In September of 2002, the Goleta City Council approved an ordinance establishing an emergency organization. The organization is to

“provide for the preparation and implementation of plans for the protection of persons and property within the City in the event of an emergency, the direction of the emergency organization, and the coordination of the emergency functions of the City of Goleta with all other public agencies, corporations, organizations, and affected private persons.”

The term “emergency” is meant to include any local event causing conditions of disaster and extreme peril including, but not limited to, fire, flood, storm, epidemic, riot, drought, severe energy shortage and earthquake. An “emergency” is also defined as a “state of emergency” causing conditions beyond the control of local services, facilities and personnel which require the combined forces of a mutual aid region or regions to combat. The term also includes any “state of war emergency” indicating that an enemy attack is probable or imminent.



Photo courtesy of Mike Schlags

Membership in the city of Goleta’s disaster council consists of the mayor, the city manager, the chief of police services, the public works director, a fire department representative and any appointed representatives from the civic, business, labor, professional or other organizations having an official emergency responsibility.

The mayor acts as an ex-officio member and liaison between the disaster council and the city council. The City Manager acts as chair/director and the police chief serves as vice-chair/director. The City Manager, acting as director of emergency services, is empowered to request of the city council or governor to proclaim a state of emergency if conditions so require. In addition, the director controls and

directs the efforts of the emergency organization. These duties include calling meetings, obtaining vital supplies, equipment and other items needed in an emergency situation and directing the coordination of services and staff.

An emergency evacuation plan for the city of Goleta is a part of the development of the city's Multi-Hazard Functional Plan. Work is ongoing to complete this plan and Goleta city management staff participated in a practice emergency response simulation within the past year.

PLANNING IMPLICATIONS

The environmental document for the 1993 Goleta Community Plan gave three different standards for fire protection: by size of population served, by the ratio of firefighters to population and by the five minute response time from the fire station location. Standards in these areas used by the National Fire Protection Association (NFPA) and International City Managers Association (ICMA) varied significantly from those used by the County Fire Department.

NFPA and ICMA recommended as ideal a service level of one engine company of three fire fighters to serve a population between 10,000 and 11,000. The Fire Department uses a standard of one engine company with three firefighters per 12,000 population. In terms of the ratio of firefighters to population served, NFPA and ICMA recommend a ratio of one firefighter/2,000 population as ideal. The Fire Department uses a countywide level of service of one firefighter/4,000 population as an absolute maximum which can be adequately served.

The Goleta Community Plan EIR analysis of fire protection services concluded that all of the fire stations currently serving the Goleta Valley at that time were at, or close to, capacity in terms of the existing population to fire fighter ratio. The EIR stated that the expected population growth for the ten year period covered in the Plan would stretch the area's fire services over acceptable limits and cause a number of Class I impacts including:

- Goleta fire stations would exceed the 4,000 persons to one firefighter ratio.
- Significant cumulative impacts would also occur as a result of the growth of the Goleta area combined with increased demand from UCSB and the Santa Barbara Airport.
- Development proposed in foothill areas with high fire danger would create special difficulties in providing adequate coverage to those areas.
- Development located outside of the five minute response time would experience potentially significant impacts in terms of adequate fire protection.

The first impact mentioned has already occurred. The population of the Goleta area (without UCSB) according to the 2000 census is approximately 73,000

people. The four fire stations in the Goleta area now have a total of 15 firefighters per shift (6+3+3+3) which gives a ratio of one firefighter for every 4,866 people in the area. In order to reach a 1 to 4,000 ratio again, three additional firefighters would need to be added. This could be accomplished by either adding one firefighter to each of the three stations that are currently staffed at three per shift, or by adding an additional fire station with three personnel per shift.

There does not seem to be any established standards pertaining to the maximum square footage of commercial and industrial structures which can adequately be served by an engine company of three. However, this should be an important consideration, too, when deciding the appropriate level of fire protection services for the Goleta area, as there are approximately twelve million square feet of non-residential structures in the city of Goleta currently, in addition to structures on the University campus and airport properties.

UCSB and the City of Santa Barbara continue to expand their level of development in the Goleta area. Both the University and the City of Santa Barbara have large projects in the planning stages on properties which are not serviced by their own fire department personnel which will further stretch available fire fighting resources in Goleta. County approval of projects in the foothill areas surrounding and to the east of the city of Goleta, including high density housing on land currently in agriculture, will further exacerbate any deficiencies.

Although most of Goleta falls within the five minute response areas of the existing fire stations, the western edge of the city of Goleta and some northern neighborhoods are not within the five minute response area and may experience longer delays. This western edge includes a number of dense housing developments, a large resort hotel and an oil and gas processing facility.

The County Fire Department provides prompt and high quality emergency services of all types to the City of Goleta. The City will need to continue to work closely with the Fire Department to ensure that this level of service does not diminish as the population of the area increases.