



# City of Palo Alto

## City Council Staff Report

(ID # 1586)

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**Report Type: Study Session Meeting Date: 4/11/2011**

**Summary Title: Office of Emergency Services Study**

**Title: Office of Emergency Services Study**

**From: City Manager**

**Lead Department: Police**

### **Recommendation**

Staff recommends that Council receive and comment on the attached report from the Urban Resilience Policy Group.

### **Executive Summary**

Urban Resilience Policy Group was contracted to conduct a study to review disaster readiness activities and how to effectively structure the Office of Emergency Services within the City of Palo Alto. The consultant's report reviews Palo Alto's emergency readiness programs and provides a recommendation about the City's staffing and organization for the Office of Emergency Services. The report also includes an assessment of the City's capacity to prepare for, respond to and recover from natural and man-made disasters.

### **Background**

The scope of this project was to provide a third party independent review of disaster readiness activities and how to effectively structure the Office of Emergency Services with the City. The City sought outside review to assess how current emergency preparedness activities are functioning and how the City can optimize our efforts and improve capabilities .

The consultant examined the current status of emergency preparedness efforts within the City of Palo Alto including the Palo Alto CERT volunteer program, the Palo Alto Neighbors (PAN) initiatives, the Citizen Corps Council (CCC) and the Infrastructure Blue Ribbon Commission.

The consultant also reviewed the operations of the Office of Emergency Services which is currently situated in the Fire Department within the Support Services Division. Currently the Office of Emergency Services is staffed by a coordinator and a part-time staff analyst.

In preparing this report, the consultant made numerous site visits to key aspects of City infrastructure; interviewed City staff, Council, community members and other key stakeholders; attended City Council, Infrastructure Blue Ribbon Commission and community meetings and reviewed city data and reports relating to emergency management and disaster resiliency.

Six themes that developed in the interview process with staff and community stakeholders were tracked. These themes included:

- Leadership
- Collaboration
- Need for transparency
- Connections with the community and disconnects
- Need for enhanced support (for the initiative)
- Location of the Office of Emergency in the City organization

### **Discussion**

The comprehensive report makes three recommendations to improve the state of emergency preparedness within the City of Palo Alto. The report also discusses financial considerations that could enable the implementation of these recommendations. The recommendations being made by the consultant include:

#### **Recommendation 1**

Staff the Office of Emergency Services (OES) with a senior director (and professional staff) with cross-departmental authority and direct report responsibility to City executive management.

#### **Recommendation 2**

Implement a plan to improve the current Emergency Operations Center (EOC) so it is located in a seismically safe facility with appropriate functional equipment and amenities. Designate and train a multi-disciplinary, Incident Command System (ICS)-focused EOC team staffed by the City's senior management team.

#### **Recommendation 3**

Consolidate information from existing technical studies and conduct additional analysis.

- **Part A:** Establish an internal clearinghouse to compile and synthesize findings from recent and current planning studies, committee reports, budget materials and other technical and community findings on Palo Alto's state of disaster readiness;

- **Part B:** Conduct a formal HAZUS (Hazards U.S.) risk assessment of the Palo Alto community with site-specific data for inclusion in a City-generated Hazard Mitigation Plan;
- **Part C:** Add disaster readiness to the City's annual public services survey; and,
- **Part D:** Refer the issue of seismic/disaster vulnerability to the City's Infrastructure Blue Ribbon Commission to survey the disaster/seismic vulnerability of Palo Alto's built environment starting with facilities and systems essential to City operations

Tonight the consultant will make a presentation that will include an overview of her methodology, key findings and recommendations to the City to improve City's emergency preparedness functions. The City Manager will be prepared to return to Council with implementation recommendations and timelines.

**Attachments:**

- OES Study Report 033111 (PDF)
- OES Study PowerPoint 040511 (PPT)

Prepared By: Dennis Burns, Police Chief

Department Head: Dennis Burns, Police Chief

City Manager Approval: James Keene, City Manager



# Toward a Resilient Future: A Review of Palo Alto's Emergency Readiness

Prepared by Urban Resilience Policy March 31, 2011

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## Acknowledgements

I'd like to thank the community members, city officials, and Stanford University staff interviewed for this effort and who shared their vision for a more disaster resilient Palo Alto. Many people gave their time to meet with me and to discuss the challenges that they faced to keep community safety at the forefront. Members of the Palo Alto CERT Program and the Palo Alto Neighborhoods group were especially generous with information and commentary on this crucial disaster safety work.

City Manager James Keene and Interim Public Safety Director Dennis Burns, along with their staff, provided the needed support for the research and interview visits. Mr. Keene, Chief Burns and staff freely shared observations about the City's operations and the community's engagement in this initiative. Officer Ken Dueker and former assistant to the City Manager, Kelly Morariu, developed a suite of background materials that were essential reading for the review. The staff in the Office of Emergency Services, Rich Maloney and Paul Lufkin, provided much-needed data and program history.

Katie Whitley, in the City Manager's Office, assisted with interview arrangements; and, Barbara Teixeira, the Police Department's coordinator, demonstrated adept logistics' management throughout the review process.

The following people contributed astute and helpful commentary on Palo Alto's disaster readiness efforts in project interviews and public meetings:

### Community Members

- The Honorable Judy Kleinberg, Palo Alto Mayor (2006)
- Dr. Ray Bacchetti, Co-chair, Infrastructure Blue Ribbon Commission
- Victoria Geen-Lew, Risk Manager, Palo Alto Unified School District
- Linda Le Noir, Nurse, Palo Alto Unified School District
- Ken Matzke, Red Cross Silicon Valley representative
- Doug Kalish, Palo Alto CERT
- Annette Ross, Palo Alto CERT
- Ruth Satterthwaite, Palo Alto CERT
- Bob Sikora, Palo Alto CERT
- Annette Glankopf, Chair, Palo Alto Neighborhoods
- Ann Crichton, Palo Alto Neighborhoods
- Lydia Kou, Palo Alto Neighborhoods
- Patrick Muffler, Palo Alto Neighborhoods
- Douglas Moran, Palo Alto Neighborhoods
- Ken Allen, ARES-RACES

### Palo Alto City Council

- The Honorable Sid Espinosa, Mayor
- The Honorable Yiaway Yeh, Vice Mayor
- The Honorable Karen Holman, Member
- The Honorable Larry Klein, Member
- The Honorable Gail Price, Council Member
- The Honorable Gregory Scharff, Member
- The Honorable Greg Schmid, Member
- The Honorable Nancy Shepherd, Member

### City Manager's Office

- James Keene, City Manager
- Pamela Antil, Assistant City Manager
- Kelly Morariu, Former Assistant to the City Manager

### City of Palo Alto Staff

- Dennis Burns, Interim Public Safety Director
- Roger Bloom, Deputy Chief, Fire Department
- Judy Jewel, Deputy Chief, Fire Department
- Charles Cullen, Technology Director, Police Department
- Valeria Fong, Utilities Department Director
- Lalo Perez, General Services Department Director
- Curtis Williams, Planning Director
- Mike Sartor, Public Works Director
- Tomm Marshall, Assistant Director, Utilities Department
- Larry Perlin, Building Official, Planning Department
- Rich Maloney, Interim Coordinator, Office of Emergency Services
- Paul Lufkin, Staff Coordinator, Palo Alto CERT
- Ken Dueker, Homeland Security Coordinator
- Barbara Teixeira, Special Assistant to Chief Burns
- Linda Clerkson, Public Information Officer, City Manager's Office
- Christine Paras, Budget Analyst, General Services Department
- Pete Hazarian, Budget Analyst, Police Department

### Stanford University Staff and Affiliates

- Laura Wilson, Chief, Stanford University Police Department
- Keith Perry, Office of Emergency Services Coordinator
- Greg Deirlein, Professor, Stanford University Engineering Department
- Bernadette Burnes-Line, Office of Emergency Management, Stanford Hospital and Clinics

To protect life, property, and the environment from natural and man-made disasters through preplanning, training, rapid emergency response, and public safety education for the benefit of the community.

—City of Palo Alto's Statement on Community Safety

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## Introduction

The Bay Area is susceptible to natural hazards such as flooding, urban wild land fires, and earthquakes, and local cities must manage unexpected disruptions. Dealing as well with public health emergencies and technological and human-generated disasters, California communities have long experience with safety and risk management. Many national crisis management practices originated in California. They were developed after repetitive disasters prompted policy and program initiatives based on using sophisticated disaster preparedness and response planning, intricate mutual aid systems and prudent building construction standards.

The City of Palo Alto's efforts to improve its emergency and disaster readiness are part of this larger pattern. The City Council continued this issue as a priority for the coming fiscal year, and the City Manager initiated assessments to improve the City's knowledge about its emergency response and readiness capacity. Studies recently completed or underway include assessments of fire services; emergency medical services; public safety building alternatives; fire management; hazard mitigation; infrastructure systems and facilities; and after-action analysis of the City's response to emergencies. Given the state and national economic climate, Palo Alto is to be commended for its progressive commitment to understanding and improving the City's safety. The recent earthquakes in New Zealand and Japan, and the resulting tragic outcomes, make this community effort all the more urgent.

## Current Status

Palo Alto has long experience with responsible attention to community safety. The City has accomplished emergency first responders in the Police, Fire, Public Works and Utilities Departments. They manage the city's expected disasters and effectively coordinate among themselves. Floodplain management after the 1998 flood on San Francisquito Creek has led to a successful model of inter-jurisdictional cooperation for risk reduction. Seismic safety measures that preceded the 1989 Loma Prieta earthquake promote safe construction; long time measures are in place to construct new buildings to safer earthquake standards that protect life safety. Current assessments of fire safety; emergency medical services; fire risk; floodplain issues; and, climate protection are being scrutinized to improve Palo Alto's overall capacity to withstand disruptive crises.

The next step for the City is to synthesize the findings from these varied studies and develop a strategy to increase community safety through preparedness, training, and risk reduction and management.

## Background

In October 2010, the City commissioned a review of its disaster readiness and how to effectively structure the Office of Emergency Services. This review of Palo Alto's emergency readiness programs will provide a recommendation about the City's staffing and organization for the office, along with an assessment of the current status of the community and City capacity to prepare for, respond to and recover from natural disasters, climate change and other substantive disruptions. For the report's purposes, "emergency/disaster readiness" will serve as the umbrella concept of review, rather than "emergency preparedness." The broader idea of readiness speaks to a more holistic notion of community capacity to withstand a range of disruptive events. This range spans from typical emergencies (winter storms or structure fires) that local authorities can readily handle to large-scale events such as earthquakes, wild land fires, or public health and security crises that may exceed local response capacity.

In June 2010, the Santa Clara County Civil Grand Jury writes in its report, "Disaster Preparedness in Our County and Cities" that:

"...Each city is responsible for its own emergency services and has its own emergency operations center."

"We're developing a 'coherent vocabulary' about these issues."

James Keene  
City Manager  
City of Palo Alto

Local responsibility to conduct and manage immediate response to emergencies and disasters is a mandated responsibility. This is often delegated to operational departments without sufficient resources, professional expertise or organizational authority to effect adequate preparation across municipal departments and within a community. Those tasked with the work must deal with significantly reduced state and federal funding that, in the past, supplemented local allocations for disaster readiness.

Palo Alto, however, has kept community safety an active policy issue for the last five years while many cash-strapped cities closed emergency services offices or reduced staffing. The City Council and staff tracked emergency preparedness in the 2005–2007 budget as an ad hoc cross-departmental initiative. Past Mayor Judy Kleinberg convened the Palo Alto Red Ribbon Task Force which stated in its March 2008 meeting minutes that it: "...was formed to light a fire."

The recent series of City-commissioned studies along with community efforts of the Palo Alto CERT / Palo Alto Neighborhood Disaster Activities' (PANDA) volunteers, the Palo Alto Neighbors (PAN) initiatives, the Citizen Corps Council (CCC), and the Infrastructure Blue Ribbon Commission (IBRC) signal community appetite to study and discuss challenging risk management problems.

The next step is to channel discussion and analysis to productive purpose with defined, measurable outcomes. The City has to garner the political will and commitment to address a comprehensive approach for its emergency and disaster readiness initiative. Managing expectations and making incremental progress has to be part of the decision-making process among the interested and affected parties.

## Review Recommendations

### Recommendation 1

Staff the Office of Emergency Services (OES) with a senior director (and professional staff) with cross-departmental authority and direct report responsibility to City executive management;

### Recommendation 2

Implement a plan to improve the current Emergency Operations Center (EOC) so it is located in a seismically safe facility with appropriate and functional equipment and amenities. Designate and train a multi-disciplinary, Incident Command System (ICS)-focused EOC team staffed by the City's senior management;

### Recommendation 3

Consolidate information from existing technical studies and conduct additional analysis:

**Part A:** Establish an internal clearinghouse to compile and synthesize findings from recent and current planning studies, committee reports, budget materials and other technical and community findings on Palo Alto's state of disaster readiness;

**Part B:** Conduct a formal HAZUS (Hazards U.S.) risk assessment of the Palo Alto community with site-specific data for inclusion in a City-generated Hazard Mitigation Plan;

**Part C:** Add disaster readiness questions to the City's annual public services survey; and,

**Part D:** Refer the issue of seismic/disaster vulnerability to the City's Infrastructure Blue Ribbon Commission to survey the disaster/seismic vulnerability of Palo Alto's built environment, starting with facilities and systems essential to City operations.

The recommendations developed below could be accomplished within a two-year period; completed cost-effectively and managed substantially with internal staff. Palo Alto has significant assets in this arena—strong community support; highly professional and capable staff; clear direction from elected leaders; healthy financial capacity—a combination not typical in Bay Area communities.

## Discussion

**Recommendation 1: Staff the Office of Emergency Services (OES) with a senior director (and experienced professional staff) with cross-departmental authority and direct report responsibility to City executive management.**

### Identified Gaps

The existing Office of Emergency Services structure and staffing complement does not adequately address the City's multiple needs for internal readiness and external coordination work. The OES is currently situated in the Fire Department and staffed by an interim coordinator (full-time) and a staff analyst (part-time); an assistant fire chief is the OES unit supervisor.

"We need someone at the top of this command who has vision, staff and the appropriate funding."

Annette Glankopf, Co-chair  
Palo Alto Neighbors (PAN)

Given this position in the organization, OES does not have the authority to overcome planning and preparedness deficiencies. After conducting interviews with city staff stakeholders, it is clear that departments are working in their subject-matter areas of expertise and not coordinating effectively on emergency/disaster readiness. Departments do not fully consider beforehand their responsibility in crisis situations that cut across boundaries, sectors and jurisdictions. No single group has demonstrated crisis management or leadership on a comprehensive level, resulting in a fragmented and ineffective approach to response and readiness. This is reflected in recent staff findings from the 2010 plane crash incident, and in the project interviews.

In the September 2010 City Council update on emergency preparedness, staff cited the need to update and/or complete the City Emergency Operations Plan (i.e., finalize missing annexes); Continuity of Operations Plan (COOP); Public Health Emergency Plan (includes Pandemic event planning); the Community Emergency Plan; and, the Foothills Fire/Emergency Plan. City staff assessments of recent disruptive events cite the need for a unified emergency management system with ways to track internal accountability for implementing lessons gained through direct experience; incorporating best practices gleaned from the research and technical practice literature; and, mainstreaming OES operations into the organization's and community's life.

### Proposed Office Structure and Staffing

The City is advised to appoint a Director of Emergency Services assigned at a senior staff level, with a position description that defines specific responsibility for the City's overall emergency/disaster readiness. The overall responsibilities would be to identify and compile information on local hazards; conduct a systematic community risk assessment; develop a comprehensive management approach to include prevention/mitigation, preparedness, response and recovery initiatives. Such an appointment would tangibly demonstrate the City's commitment to overall community readiness. This position would be a direct report to the City's executive management with organization-wide authority. The work to be done warrants the City Council's and City Manager's *imprimatur*; quarterly performance reports can help keep the Council priority a front burner issue.

61%

61% of interviewees believe the Palo Alto OES requires more centralized leadership and vision.

In addition, designate two professional staff positions and one administrative staff position to form an interdisciplinary OES to improve City and community readiness. Of the professional staff, one position would be designated as the City's internal planning and preparedness coordinator; and, the second would serve as a community liaison for public safety, other community network coordination, and funds development. Administrative staff is crucial to support the OES team and manage the planning, training and scheduling logistics for city and community training initiatives. This recommendation could be implemented by re-casting current positions to the elevated, organization-wide platform needed to ensure the City's commitment to emergency/disaster readiness.

### Integrate Internal Efforts

Emergency/disaster readiness ought to be a core competency for all senior staff, including department directors and deputy directors.<sup>1</sup> Taking modest first steps can develop the staff capacity: developing departmental emergency/disaster procedures; including readiness metrics in performance evaluations; institutionalizing Disaster Service Worker readiness beyond "paper compliance" with thorough training on departmental activities to complement emergency and disaster response.

Updating and/or completing all emergency procedures and plans are essential steps for the City. The need for this was mentioned in many staff interviews, and cited in the September 2010 City Council update. Updating the City's 2007 Emergency Operations Plan as well as departmental operating procedures; the continuity of operations plan; Public Health emergency planning; and, anti-terrorism and security procedures will raise awareness and establish improved coordination.

Consistent emergency/disaster training and locally-generated disaster exercises will improve the general readiness quotient for all staff across department lines. Operational departments—Public Works, Utilities, Police and Fire Departments—are dependable in their response to in-the-moment emergencies. Their staff colleagues are not as well engaged. At present, staff in non-operational departments would benefit from more in-depth briefing on their disaster roles and duties. Regular training at the division and department levels can remedy this shortcoming and build functioning, multi-disciplinary teams.

Harnessing the professional expertise and authority of the staff emergency preparedness working group and the more senior steering committee is critical. These internal staff groups are not sufficiently organized or staffed to make meaningful progress in planning, training and exercise efforts. Though there are diffused readiness efforts, scattered among city departments, the organization uses these groups mostly for information sharing when they could be meaningfully used as decision-making and action-based groups. Authority and responsibility for disaster readiness is indeterminate; staff is caught in a confusing leadership gap, as cited by City staff interviewees and the TriData/ICMA February fire services study.

Continue the departmental planning and training that includes National Incident Management System (NIMS), state and regional disaster exercises, and Palo Alto-specific planning both within the city government and in the community with the private sector and City residents. Supplement generic disaster exercises with city-specifics for more in-depth capacity building. Palo Alto has program and operational components that, pulled together from varied departments, could form a cogent, more socially enticing and professional approach to community safety.

## Improve Community Coordination

As cited in Palo Alto stakeholder interviews for this project and in City staff reports, disaster readiness efforts are diffused in the community. There are many groups with ambitious programs going on at the block, neighborhood and larger area levels. These need to be more closely knit together, respecting the niche role each program and effort plays in the larger work and honoring the traditions that community volunteers have established and assiduously maintain.

Community support and good will could be strengthened by the City's decisions on how to structure the Office of Emergency Services and readiness initiatives. In its September 2010 report to the City Council on readiness issues, staff examines the situation with community groups working on emergency preparedness and the need to integrate the varied community efforts; improve ways for volunteers to connect; and to work on leader succession plans. These are all necessary tasks on which to embark and could begin immediately.

Staff is perceived, for the most part, to shy away from community involvement. There are exceptions to this, but in general, it is time to change the organizational culture and enliven the interactions between the community and City staff. Such a change would be a significant improvement, as would having staff interact with the community as equal partners, and not as clients or potential disaster victims. This would be a step towards improved civility and respect.

Easing territorial issues in the community through diplomatic engagement is essential, as is melding community programs into a cohesive whole to lessen the confused boundaries among groups. The basis of a strong, resilient community is in its relationships, the "social capital" that is created through block and faith-based groups and other shared interest affiliations.<sup>2</sup> This is an important aspect of Palo Alto's potential for improved emergency/disaster readiness. Research shows that when neighbors know each other and have strong relationships, City Hall can more effectively partner to increase social network building and programs tailored to specific community needs like improved volunteer access in a crisis or specified procedures for making post-disaster donations.

# 42%

42% of interviewees believe there is significant disconnect between the Palo Alto OES and the greater community.

“PA CERT wants to work with cooperative independence.”

Doug Kalish, Community Coordinator, PA CERT

## 64%

64% of interviewees believe the Palo Alto OES needs to increase its collaborative efforts with other government agencies, community groups, and non-government organizations involved in EMS.

Another challenge is for the varied neighborhood groups to work more closely together to support their common goal of a well-prepared city. The newly renamed Palo Alto Community Emergency Response Training (PA CERT), Palo Alto Neighborhoods (PAN) and other community groups would benefit greatly if they were to more substantively align their efforts. As well, all community groups would improve their efficacy if they were to promote more diversity in their membership. Inviting more young people, whether they are students or young families, to participate in these important community activities would be a welcome addition to the existing groups. It will spread the work to more people and build the successor base to the current leadership. Emergent leadership in the community needs more than sporadic interest from its government; the City needs to provide ongoing support for growing and maintaining engaged community networks and activities.

Palo Alto's community is a strong partner in disaster preparedness—people are engaged and clamoring to work with City leaders. This opportunity can be used to good purpose; it too rare a situation to squander by eroding the goodwill and trust of community leaders with indecision and inaction.

The business, commercial and research sectors need to be invited into the larger community on a broader scale than currently is in place. Palo Alto's major employers depend on the City's ability to manage risk and protect private sector assets as well. Having a staff coordinator to strengthen and coordinate activities with the community and partner institutions/agencies will improve readiness and solidify relations between City Hall and professional groups. A recent study published by the National Research Council shows that communities with strong, pre-disaster bonds among sectors recover more readily after crises.<sup>3</sup>

The City's outgoing public information is helpful on the City of Palo Alto website, through AlertSCC and other push technologies. Having a community coordinator in the OES program will supplement the capacity to distribute information and boost education and outreach goals. Having a full-time staff assignment will allow for more engaged contact, beyond what is possible now.

It is in the best interests of all to cultivate a more robust partnership with Stanford University. Working more closely with the Stanford University campus would be an entry point to invite students as interns in community outreach and organizing efforts to diversify and strengthen readiness efforts. Good relations between the City and campus are in place at the staff level, and bringing in the senior leadership as active colleagues in disaster readiness planning is another crucial aspect to be improved.

**Recommendation 2: Implement a plan to improve the current Emergency Operations Center (EOC) so it is located in a seismically safe facility with appropriate and functional amenities. Designate and train a multi-disciplinary, Incident Command System (ICS)-focused EOC team staffed by the City's senior management.**

The existing EOC is in a seismically unsafe Police Annex, as is the City's public safety dispatch center and police department garage according to the June 2010 assessment report and discussions with City engineering, police and public works staff.<sup>4</sup> This is not acceptable for many reasons. By state law, an essential service facility must be able to sustain disaster impacts and maintain continuous functioning. Further, those who direct the emergency and disaster response for the Palo Alto community, Stanford University and in neighboring cities dependent on the City for municipal services need a secure, sturdy EOC. Other deficiencies cited in project interviews and staff reports include the structurally unsafe EOC physical environs; inadequate telecommunications capacity; lack of current technology needs and equipment for a fully functioning center; and, a lack of resilient baseline utilities in the room itself.

### Proposed Solution

The City needs a seismically safe Public Safety Building, as outlined in the Public Safety Building Feasibility Study of Facility Alternatives, June 2010 and presented to the City Council. It is urgent that the City implement development of an interim EOC solution, optimally in conjunction with local institutions and partner agencies to conserve resources and to better realize the unified response goals for an ICS-centric disaster response and recovery system.

The City's 2010 acquisition of a state-of-the-art Mobile EOC (MEOC) was an integral step to providing an alternate response center. The communications and information gathering tools in the vehicle are innovative and put Palo Alto in a much better response condition in the short-term. In a long-term disaster response and recovery period, it must be supplemented to be adequate to community needs. Interim solutions to explore would be using portable buildings sited in a secure, low-hazards area or sharing space with other City institutions and agencies.

Palo Alto has a strong technology capacity and is exploring use of technical tools such as WebEOC, the state's RIMS application, and other resources in addition to communications improvements with the new MobileEOC. These efforts must be continued and supported by the City's leaders.

A real, not virtual, EOC is important for ongoing emergency/disaster situations.<sup>5</sup> Improved situational awareness emanates from working with a multi-disciplinary, ICS-based team to its best effect. This is a significant strength in a crisis leveraging coordinated human capacity. This includes using technological tools for information gathering and problem-solving; though, the strength of the central EOC model is that it activates the people- and brain-power of the inter-sectoral response team. Over-reliance on technological tools can hinder decision-makers from looking at the big-picture in a crisis. In normal emergencies, the city responds adequately and efficiently. The Palo Alto staff, though, needs to strengthen its capacity to evolve more sophisticated response operations in situations beyond that typical emergency. Whether it is a regional earthquake, urban wild land fire or a technological disaster like last September's San Bruno gas pipe explosion, cities in metropolitan areas face complex emergencies that can have debilitating, cascading impacts. Teams develop versatile and nimble response reflexes from working together and building their social connections. Having the right physical environs to convene staff responders, community and senior leaders will enhance operational synergy in a multifaceted disaster.

## 50/50

Amongst interviewees who voiced their opinion on where the OES should be located, there is a relatively even split between City Manager's Office (5 of 33) and the Fire Department (4 of 33).

Recommendation 3: Consolidate information from existing technical studies and conduct additional analysis.

Part A: Establish an internal clearinghouse to compile and synthesize findings from recent and current planning studies, committee reports, budget materials and other technical and community findings on Palo Alto's state of disaster readiness.

Studies recently completed or underway include assessments of fire services, emergency medical services; public safety building alternatives; fire management; hazard mitigation; infrastructure systems and facilities; and after-action analysis of the City's response to emergencies. There is scarce coordination, however, to link overall City planning to directly support disaster safety work through the Comprehensive Plan, Safety Element; Hazard Mitigation Plan, and Climate Change Adaptation Plan.

"We want a sustainable model for Palo Alto's Office of Emergency Services."

Dennis Burns, Chief  
Palo Alto Police Department

These studies will provide quantifiable information about Palo Alto's disaster readiness and emergency operational status. Managing the information flow and analysis for the Fire Services assessment, the Fire Management Plan, the Hazard Mitigation Plan (still in draft) and the Community Safety Element (components of this are layered throughout the City's Comprehensive Plan) is another gap to be filled.

Little cohesive budget information is collected across departmental lines to document the City's investment in community readiness and safety. An assessment of the City's budget and allocations attributable to disaster readiness planning, training and risk reduction is called for. A multi-department review of the public safety departments, public works, utilities, planning and community development departments would yield the policy documents and budget information the City Council and senior staff need for targeted decision-making about emergency/disaster risk management.

**Part B: Conduct a formal HAZUS (Hazards U.S.) risk assessment of the Palo Alto community with site-specific data for inclusion in a City-generated Hazard Mitigation Plan.**

“The City has to assess its built environment.”

Mike Sartor, Director  
Palo Alto Public Works'  
Department

Palo Alto's cumulative risk, whether from natural, technological or human-generated disasters has not been adequately studied; disaster loss estimates as required by the Federal Emergency Management Agency (FEMA) have not been developed. With this lack of detailed information about potential, defined risk, it is difficult to know at present how to best address preparedness and risk prevention measures. HAZUS loss estimates for the City are a crucial planning tool for preparedness, response and recovery planning. Further, they are called for by FEMA when making post-disaster recovery claims and in the adoption of mandated hazard mitigation plans. Having specified mitigation projects cited in the plan will open Palo Alto's eligibility for Pre-Disaster Mitigation funding, available annually through the state's CalEMA disaster agency.

Work with regional partners such as the U.S. Geological Survey, Santa Clara County, the Association of Bay Area Governments and FEMA Region IX to refine existing, generic risk information for more detailed local planning needs. Currently, no detailed disaster loss estimates for Palo Alto are available, so informed decisions about prioritized investment for risk reduction from the City Council or other deliberative bodies could be clouded by inadequate data. Having a HAZUS study would be a useful tool for public consideration of disaster safety upgrades and improvements.

**Part C: Add disaster readiness questions to the City's annual public services survey.**

Current knowledge about the overall capacity of residents to respond to and withstand disasters is anecdotal and sketchy at best. Community groups and the City keep records of the numbers of people trained in emergency response classes or those who participate in disaster exercises. These data, though, do not provide defined measures of the actual ability of those counted to act effectively in a crisis situation. More precise information is needed.

Palo Alto does an excellent job of assessing the current level of community satisfaction in its Annual Report on City Government Performance, conducted by the City Auditor. This, or a like vehicle, could be a helpful tool to measure the level of the City disaster preparedness and risk reduction efforts. With a small investment of inserting new questions into this year's survey, the City can get an accurate notion of its preparedness capabilities with government and in the community. Such information could provide timely data on numbers of engaged, disaster-trained and ready-to-respond residents. It could also reveal the distribution and location of active neighborhood groups. This incremental data gathering will allow for more-informed decisions about opportune areas in which to cultivate community engagement.

Part D: Refer the issue of seismic/disaster vulnerability to the City's Infrastructure Blue Ribbon Commission (IBRC) review to survey the disaster/seismic vulnerability of Palo Alto's built environment, starting with facilities and systems essential to City operations.

Palo Alto needs more information on the seismic and disaster resistance of its infrastructure systems and facilities, initially those designated as essential service buildings that must maintain continued operations throughout a disaster.

The City's facilities require engineering reviews and attention is warranted because of the community safety and recovery aspects of this issue. Many City facilities appear to be seismically sub-standard: the Police Annex, the Emergency Operations Center, City Hall, the Multi Services Center (MSC) which houses the Utilities' and Public Works' operational divisions. Engineering evaluations of these essential service facilities, as well as a systems' interdependency analysis, would yield valuable information about the actual state of these buildings and systems. Such studies can be done fairly quickly and cost-effectively; current assessment methodologies designed for the rapid assessment of existing buildings are widely available.<sup>6</sup>

The IBRC, expert community members appointed by the City Council and through commission membership, was convened last year to review the City's backlog of deferred infrastructure maintenance; repair and replacement projects; and, financial resources needed to maintain Palo Alto's buildings and public service systems. The group has not factored into its deliberations a survey of seismic/disaster vulnerability. It would be a significant help to the City if the Commission were to add this issue to its work plan for the coming year. The IBRC is the right vehicle to take up this challenging matter of safety in the city's systems and facilities and could convey findings on this topic regarding critical City's assets.

## 4 to 1

The analysis of the statistically representative sample of FEMA grants awarded during the study period indicates that a dollar spent on mitigation saves society an average of \$4.<sup>8</sup>

A 2006 study conducted by the National Institute for Building Sciences, commissioned by the Federal Emergency Management Agency, was the first technical assessment to quantify the value of hazard mitigation (disaster risk reduction) and the efficacy of addressing infrastructure safety. The study shows that for every dollar invested in pre-disaster mitigation, four dollars are saved in post-disaster response and recovery costs. Just as in public health wellness initiatives, disaster risk prevention makes social and fiscal sense.<sup>7</sup> The IBRC's attention to disaster-related risks would bring added value to its already critical mission and ultimately help prevent building losses in a damaging earthquake. The recent catastrophe in Japan shows how interdependent building and utility systems can be crippled. Examining this risk in advance of the next disaster is a prudent task for the expert commission.

## Financial Considerations

The short-term funding for the report recommendations could be developed for the coming annual budget deliberations.

### Recommendation 1

The staffing complement as specified above is likely possible by re-configuring existing positions within City departments. This staffing model could consist of four FTEs that include a senior OES director, two professional staff, and administrative staff.

### Recommendation 2

The EOC issues are already under consideration by the City Council with a varying range of costs depending on the selected solution. Currently, the project to relocate the EOC has been deemed too costly, and has been deferred. It is possible that outside funding could be obtained from federal mitigation funds available for local jurisdictions and by tapping currently under-utilized American Recovery and Reinvestment Act funds.

Another option to explore is to explore the feasibility of creating a partnership for a multi-jurisdiction EOC that would serve partner agencies, institutions and neighboring cities. Palo Alto has examples of similar partnerships in the successful San Francisco Creek Joint Powers Authority (the floodplain management/risk reduction initiative) and in its multi-city services agreements.

### Recommendation 3

The technical studies (a disaster loss estimate) and structural evaluations of essential service buildings could range between \$35,000 for the HAZUS study and up to \$300,000 for engineering and interdependency evaluations to determine the disaster resilience capacity of City Hall, the MSC, and other essential systems and service facilities. The clearinghouse efforts to coordinate and analyze various in-process planning studies could be managed by graduate student interns with some guidance from departmental staff at a minimal cost for stipends and administrative support.

As Palo Alto considers interim planning to improve disaster readiness, it is prudent to scrutinize the City's longer-term fiscal planning to ensure smoother post-disaster recovery. The Harvard Kennedy School (HKS) recently worked on an advance disaster recovery project with the City and County of San Francisco (CCSF). The HKS team recommended financial planning measures<sup>9</sup> to speed disaster recovery that included discussions to boost reserve funds; explore the use of mutual endowment funds and survivable credit instruments. Such ideas must be considered as part of the City's ongoing disaster planning; useful guidance on post-event fiscal and economic recovery are discussed in an update the New York City Comptroller published after the 2001 World Trade Center attacks.<sup>10</sup> The report outlines the impacts of lost revenue and increased municipal expenses for services and relief efforts. It is a primer on the consequences of disaster and local government finance.

## Conclusion

### San Francisco: A Bay Area Exemplar

Bay Area communities have changed direction in their OES efforts since 9/11 and have focused on protecting against human-generated emergencies. Many communities have assigned disaster safety responsibilities to county Offices of Emergency Services as a cost-cutting measure. These are indicators that community safety and risk reduction for natural hazards have limited support.

“Palo Alto is often caught between pride and complacency. If we are complacent, are we living on borrowed time?”

Professor Ray Bacchetti  
Co-chair, Infrastructure  
Blue Ribbon Commission

An informal survey of the State CalEMA offices, the regional Red Cross, and other technical groups yielded little substantive information on the “well-prepared city.” There were no uniform standards of assessment and no detailed feedback from official organizations as to what cities are well prepared and why. The hoped-for best practices review was not fruitful as few communities are actively engaged in effective disaster readiness that encompasses emergency response, community readiness, and risk mitigation. Investing in more than immediate emergency response capacity is seen as a luxury when cities contemplate low frequency, high consequence disasters. The salience of pressing needs—such as crime prevention, urban fire suppression, or maintaining public services—trumps (sometimes understandably) long-term disaster risk management.

San Francisco, Oakland, San Jose have garnered federal Urban Area Security Initiative (UASI) funds to keep law enforcement and direct incident response funded. In general, though, only one city has continued progress with its risk reduction and readiness initiatives.

San Francisco has emerged in many ways as the regional leader on disaster safety and emergency response. UASI funding has kept the CCSF OES staffed at adequate levels, as San Francisco is the regional coordinating city for urban area security and is the fiscal agent for the nation’s largest federal funding pool for incident safety. As a city and county jurisdiction, San Francisco has more resources at hand for disaster planning; this economy of scale allows for deliberately leveraged local, state and federal funds.

San Francisco’s seismic safety programs address ongoing risk issues through three initiatives: the Community Action Plan for Seismic Safety (CAPSS), the ResilientSF program, and the CCSF Enterprise Risk Management pilot. These three programs incrementally tackle community risk in residential buildings, in response and preparedness programs and through a comprehensive management system. San Francisco’s Neighborhood Empowerment Network is a critical component, as is the Lifelines Council, a municipal partnership with the City’s utility providers. In “The Resilient City” study,<sup>11</sup> San Francisco Planning + Urban Research Association (SPUR) advisors outline an ambitious agenda to benchmark seismic safety outcomes. The innovative approach brings metric-based thinking to disaster recovery planning. This report is compatible with Palo Alto’s readiness priorities and provides the practical guidance to look at specific measures for post-disaster restoration of services, housing and economic well being.

“Social resilience in the face of disaster is not, itself, an activity—it is an outcome of effective social risk management activities. Developing the right level of resilience will flow from judicious choices about where society can make the best investments in overall social risk reduction.”

—Professor Herman B. Leonard and Dr. Arnold Howitt

*Integrative Risk Management: Advance Disaster Recovery*, Ch. 2, SwissRe publication; 2010

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## Next Steps

The National Academies of Science recently launched a study on national disaster resilience. In addition to the necessities of emergency response, the research committee sees that urban areas must tackle the challenges of reconstituting community beyond physical rebuilding after a major disaster. Resilience is seen as the next level of community preparedness. Along with the crucial emergency response programs that cities implement, promising approaches are emerging to incorporate a steady, comprehensive effort over time to responsibly address risk into the larger framework of daily government and community activities. Preventative measures taken now through planning, preparedness and response initiatives will save lives, reduce human suffering and protect the City's physical assets for a robust recovery after the next disaster hits.

Palo Alto's articulated emergency readiness objectives fit this new norm. Palo Alto can leverage its varied and unusual resources—the university, community brain trust, municipal utilities operations—to increase resilience in the face of the unexpected. Building community resilience and strengthening capacity is more than emergency response. It includes planning, preparing, responding and recovering so that these actions can be integrated into the community's daily life.

## Appendices

### Appendix A: Disaster Readiness Practices in the Greater Bay Area

#### Milpitas Office of Emergency Services

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<b>LOCATION</b>	Fire Department
<b>STAFF</b>	Emergency Manager (full-time employee); shares with Fire Administrator
<b>PROGRAMS</b>	Manages Strategic Actions for Emergencies (SAFE): neighborhood program (18 active teams, 250 people); promotes pre-disaster mitigation; participates and hosts the Emergency Preparedness Commission; collaborates with ARES/RACES; conducts public education programs
<b>CONTACT</b>	Office of Emergency Services, 777 South Main Street, Milpitas, CA 408 586-2810 <a href="http://www.ci.milpitas.ca.gov/government/fire/oes_safe.asp">www.ci.milpitas.ca.gov/government/fire/oes_safe.asp</a>

#### Berkeley Office of Emergency Services

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<b>LOCATION</b>	Fire Department N/A
<b>STAFF</b>	N/A
<b>PROGRAMS</b>	Offers tax reduction incentives for seismic work highlighted; conducts Getreadyberkeley.org neighborhood campaign; provides on-line preparedness links; provides CERT training at fire department; offers program for neighborhood disaster supplies through local tax program; offers City Building and Safety Programs; manages BENS notification program; offers Transfer Tax Reductions for Qualifying Seismic Work; manages Soft Story and Unreinforced Masonry Program (URM); maintains Disaster Mitigation Plan
<b>CONTACT</b>	Public Safety Building, 2100 Martin Luther King, Jr. Way, Berkeley, CA 94704 <a href="http://www.ci.berkeley.ca.us/disasterresistant/">www.ci.berkeley.ca.us/disasterresistant/</a>

#### Mountain View Office of Emergency Services

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<b>LOCATION</b>	Fire Department Training Safety
<b>STAFF</b>	Emergency Services Coordinator (half-time employee); Community Relations Officer (half-time employee); Public Education Specialist (half-time employee)
<b>PROGRAMS</b>	Offers CERT Training; manages EOC; designs and conducts exercises; resource for schools, businesses, community groups, service organizations and neighborhood associations, providing information, training, assisting with exercises and participating in community events; provides on-line map with CERT leaders' names, contact info and geographic areas delineated; provides fire and evacuation public education
<b>CONTACT</b>	Fire Department, 1000 Villa Street, Mountain View, CA 94041 650 903-6365 <a href="http://www.ci.mtnview.ca.us/city_hall/fire/programs_n_services/disaster_preparedness.asp">www.ci.mtnview.ca.us/city_hall/fire/programs_n_services/disaster_preparedness.asp</a>

**Sunnyvale Office of Emergency Services**

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<b>LOCATION</b>	Public Safety Building
<b>STAFF</b>	Emergency Prep Coordinator (full-time employee); shares with Public Safety Administrator
<b>PROGRAMS</b>	Centerpiece: Sunnyvale Neighborhoods Actively Prepared (SNAP); trains in ICS
<b>CONTACT</b>	Department of Public Safety, 700 All America Way, Sunnyvale, CA 94086 408 730-7190 <a href="http://www.sunnyvale.ca.gov/Departments/PublicSafety/EmergencyPreparedness.aspx">www.sunnyvale.ca.gov/Departments/PublicSafety/EmergencyPreparedness.aspx</a>

**Santa Cruz Office of Emergency Services**

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<b>LOCATION</b>	Office of Emergency Services
<b>STAFF</b>	OES Manager (full-time employee); Administrative Secretary (quarter-time employee)
<b>PROGRAMS</b>	Conducted successful equine evacuation; trains volunteers and managed spontaneous volunteers well; volunteers trained with backups—three deep; shelters identified; not a lot of home retrofit done—codes enforced for new construction; City buildings and schools have been retrofit; SEMS/NIMS based; collaborates with strong HAM radio/ARES teams.
<b>CONTACT</b>	Office of Emergency Services, 701 Ocean Street, Santa Cruz, CA 95060 831 454-3188 <a href="http://sccounty01.co.santacruz.ca.us/oes/">http://sccounty01.co.santacruz.ca.us/oes/</a>

## Appendix B: Project Methodology

The overall project's goal was the development of recommendations about the placement of the City's Office of Emergency Services and a review of Palo Alto's readiness for disasters.

I visited the community on numerous site visits over the course of four months; attended community meetings, City Council meetings as well as conducted site visits to the City's primary essential service facilities. The multiple site visits included a brief review of the City's Emergency Operations Center; fire stations (including Fire Station 8); the school district administration building; the current Office of Emergency Services site; the City's Multi-Services Center; and, the water treatment facility.

Many useful city documents and reports were provided for project research that included pertinent committee agendas and minutes; staff meeting notes; working group project plans and meeting minutes; City budget documents; and particular media reports that focused on the City's disaster safety issues and coverage on specific incidents, such as the February 2010 plane crash emergency and community power outage.

The city's staff project managers asked that I conduct interviews with staff and community stakeholders. Forty interviews were conducted; of these, 33 were used to tabulate findings reflected in the review's recommendations. The remaining seven interviews were of a more general background nature, rather than specific comments on the Office of Emergency Services' placement issues. All the interview materials were useful in the development of the final recommendations as they addressed issues relative to the larger community readiness snapshot.

Six themes that developed in the interview process were tracked: leadership; collaboration; need for transparency; disconnect with the community; lack of support (for the initiative); and, location of OES in the City organization. The discussion about these topics yielded useful, qualitative findings. In general, more quantitative investigation is needed from a broader sample as the City refines its efforts on disaster readiness programs and investment decisions. A recommendation is included in the report on a simple way to access more information from the larger Palo Alto community via the annual City services survey.

### Interview Themes

#### Leadership

- 61% (20 of 33) interviewees believe the Palo Alto OES requires more centralized leadership and vision.
- This sentiment was shared rather evenly between city employees, local community, and outside organizations:  
61% government to 56% community to 67% outside organizations

#### Collaboration

- 64% (21 of 33) interviewees believe the Palo Alto OES needs to increase its collaborative efforts with other government agencies, community groups, and other non-government organizations involved in EMS.
- This sentiment is dominated by members of the community:  
61% government to 78% community to 50% outside organizations

#### Need for Transparency

- One third (33% or 11 of 33) of interviewees believe the Palo Alto OES operations need increased transparency/clarity.
- This opinion is dominated by members of outside organizations:  
28% government to 31% community to 50% outside organizations

**Disconnect with Community**

- 42% (14 of 33) interviewees believe there is significant disconnect between the Palo Alto OES and the greater community
- This opinion is dominated by members of the community:  
33% government to 67% community to 33% outside organizations

**Lack of Support**

- 45% (15 of 33) interviewees expressed belief that the Palo Alto OES lacks proper support (in funds, recognized authority, legitimacy, etc.).
- This opinion is dominated by both members of the city and community:  
50% government to 56% community to 17% outside organizations

**Location**

- Amongst interviewees who voiced their opinion on where the OES should be located, there is a relatively even split between City Manager's Office (5 of 33) and the Fire Department (4 of 33)
- This sentiment is split very evenly between all three types of respondents.

### Appendix C: Project Documents Reviewed

- City of Palo Alto Emergency Operations Plan 2007
- City of Palo Alto: September 13, 2010 Memorandum from the City Manager to the City Council: Update on City and Community Emergency Preparedness Activities
- Presentation: Council Priority Update: Emergency Preparedness Monday, September 13, 2010
- City of Palo Alto: Terrorism Response Plan 2001
- City of Palo Alto: City Council Emergency Procedures, July 2008
- Introduction to Citizen Corps Council (presentation format)
- Resolution 8974 to Integrate the CCC with the ESC
- Steering Committee and Sector Descriptions
- CCC Steering Committee Directory and biographies
- Palo Alto Stanford CCC By Laws
- City of Palo Alto: Emergency Planning & Homeland Security
- Strategic Plan, 2009–2011 (confidential draft)
- Presentation: Palo Alto/Stanford Citizen Corps Council, July 2010
- Resolution 8974 to Integrate the CCC with the ESC
- Steering Committee and Sector Descriptions
- CCC Steering Committee Directory and Member Biographies
- Palo Alto Stanford CCC By-Laws, Agenda Steering Committee Meeting, December 15, 2010
- Minutes Steering Committee Meeting
- Neighborhood Disaster Committee Meeting, Sand Hill Corridor
- PANDA Program Information
- City of Palo Alto Fiscal Year 2011 Adopted Operating Budget
- City of Palo Alto 1998–2010 Comprehensive Plan
- ICMA/TriData presentation to the City Council: Fire Services Review (get actual title)
- White Paper: Community Disaster Network (CDN): A Wireless Network for Disaster Response and Recovery
- The City of Palo Alto's After-Action Report on the February 2010 plane crash and power outage
- Mayor Judy Kleinberg's Red Ribbon Task Force: Minutes from the Final RRTF Meeting, March 17, 2008
- Report to the City Council: Study Session for Public Safety Building Feasibility Study of Facility Alternatives, June 2010
- Santa Clara County Civil Grand Jury June 2010 report: "Disaster Preparedness in Our County and Cities."
- Fire Area Management Plan
- Hazard Mitigation Plan
- Community Safety Element—embedded into the affected General Plan elements on an incremental basis
- City of Palo Alto Service Efforts and Accomplishments
- Report for Fiscal Year 2010: Annual Report on City Government Performance
- Multiple site visits—EOC, fire stations, school district, OES site, water treatment facility, MSC, Station 8
- Various committee agendas and minutes, staff meeting notes, working group project plans and meeting minutes, City budget documents, media reports

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## Endnotes

- 1 In the U.K., local government authorities must publish an annual community risk register; crisis and risk management are considered part of senior leaders' portfolio assignments under the 2004 Civil Contingencies Act.
- 2 See "Community Resilience as a Metaphor, Theory, Set of Capacities, and Strategy for Disaster Readiness," *American Journal of Community Psychology*, 41, 127-150. F.H. Norris, S.P. Stevens, B. Pfefferbaum, K.F. Wyche, & R.L. Pfefferbaum. 2008.
- 3 "Building Community Disaster Resilience Through Private-Public Collaboration," The National Research Council; The National Academies Press; Washington, D.C. 2011.
- 4 "Study Session for Public Safety Building Feasibility Study of Facility Alternatives," June 7, 2010.
- 5 See discussion in "Managing Crises: Responses to Large-Scale Emergencies," 611-614. A.M. Howitt & H. B. Leonard, eds. Washington, D.C. CQ Press. 2009.
- 6 Consult materials for local governments available through the Federal Emergency Management Agency and the Applied Technology Council that are consensus-developed standards for evaluating existing structures.
- 7 "Natural Hazard Mitigation Saves: An Independent Study to Assess the Future Savings from Mitigation Activities." Published by the Multihazard Mitigation Council, a council of the National Institute of Building Sciences; Washington, D.C. 2005
- 8 Multihazard Mitigation Council. (2005). Hazard Mitigation Saves: An Independent Study to Assess the Future Savings from Mitigation Activities. Washington, DC: National Institute of Building Sciences.
- 9 Recommendations from the July 30, 2009 presentation to the City and County of San Francisco: "Accelerating Recovery from Landscape Scale Disasters," Doug Ahlers, Arrietta Chakos, Arn Howitt and H.B. "Dutch" Leonard; Harvard Kennedy School Acting in Time Program.
- 10 "One Year Later: The Fiscal Impact of 9/11 on New York City," W.C. Thompson; New York, N.Y.; City of New York
- 11 "The Resilient City: Defining What San Francisco Needs From Its Seismic Mitigation Policies," Chris Poland, San Francisco Planning + Urban Research Association (SPUR) Report; February, 2009

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- Thompson, W. C. (2002). *One Year Later: The Fiscal Impact of 9/11 on New York City*. New York, NY: City of New York.
- Wilson, R. C. (1991). *The Loma Prieta Quake: What One City Learned*. Washington, DC: International City Management Association.

# Toward a Resilient Future: A Review of Palo Alto's Emergency Readiness

Report to the Palo Alto Community  
and City Council, April 11, 2011

Arrietta Chakos



To protect life, property, and the environment from natural and man-made disasters through preplanning, training, rapid emergency response, and public safety education for the benefit of the community.

— City of Palo Alto's Statement on Community Safety

# Project Overview

# Review of City of Palo Alto's Disaster Readiness

- City Manager's Office commissioned study in October 2010
- Examine the City's staffing and organization for the Office of Emergency Services
- Current status of the community and City capacity to prepare for, respond to and recover from natural disasters, climate change and other substantive disruptions

# Project Approach

- 40 stakeholder interviews
- Site visits to City facilities
- Attendance at City Council meetings, community group and commission meetings
- Review of City and community materials that included staff reports, Council reports and studies, readiness plans and media reports

# Community Safety Policy Initiatives

- City Council designates emergency preparedness as a priority
- Strengthening the city organization's capacity to respond and recover from disasters
- Assessing current operational strengths; update on internal planning and training

# Community Efforts Support the City's Initiative

- Palo Alto CERT: Focus on community disaster preparedness includes supplementing City response operations
- Palo Alto Neighbors: Block- and neighborhood-level organizing for stronger social bonds
- Citizen Corps Council: Linking multi-sectoral disaster planning with specified goals for pre-disaster coordination and emergency response

## Current Studies

- Studies and plans to better understand Palo Alto's readiness
- The Fire Service study conducted by Tri Data/ICMA is example of ongoing assessments

## Current Studies

- The City's disaster response plans, emergency medical services, fire risk, floodplain management and continuity of operations updates are in process
- Commission examining infrastructure maintenance needs

# 4:1

The analysis of the statistically representative sample of FEMA grants awarded during the (MMC) study period indicates that a dollar spent on mitigation saves society an average of \$4.

# Palo Alto's Current Readiness Status

- City's first responders ably manage in-the-moment emergencies
- Recent Red Cross recognition for disaster preparedness work
- Award from the regional Urban Area Security Initiative for City's response plan

## Integrating Broader Disaster Issues

- The City's next challenge is to draw together its impressive preparedness efforts with longer-term planning and implementation
- Link the City's departments more effectively through consistent disaster training
- Develop organization and community readiness measures that include risk reduction and leverage Palo Alto's social capital quotient

# Review Recommendations

## Recommendation One

- Staff the Office of Emergency Services (OES) with a senior director and professional staff
- Designate that OES has cross-departmental authority within the City's structure
- Have the OES director serve as a direct report to City executive management

61%

Of interviewees believe the Palo Alto OES requires more centralized leadership.

## Identified Gaps

- Existing OES structure and staffing inadequate
- OES does not have the organizational authority needed to overcome planning and preparedness deficiencies
- Insufficient cross-departmental coordination on disaster response planning and internal accountability

# Proposed OES Structure and Staffing

- Elevate OES to a more senior position in the City organization
- Appoint a Director of Emergency Services
- Designate two professional staff for internal and community coordination

## Integrate Internal Efforts

- Make disaster readiness a core competency for staff
- Coordinate readiness activities from a central point
- Strengthen training and disaster exercises across department lines
- Boost authority of existing planning groups

## Improve Community Coordination

- Knit together community safety efforts
- Support diplomatic discussion and engagement among community groups
- Seek more diverse participants in all the programs
- Be an active partner with Palo Alto residents, businesses and the Stanford University campus

# 64%

Of interviewees believe the Palo Alto OES needs to increase its collaborative efforts with other government agencies, community groups, and non-government organizations involved in EMS.

## Recommendation Two

- Implement a plan to locate the current Emergency Operations Center (EOC) in a seismically safe and appropriately functional facility
- Designate & train a multi-disciplinary EOC team staffed by the City's senior management

## Proposed Solution

- City needs a seismically safe, functional EOC
- Acquisition of the MobileEOC excellent interim step
- Consider innovative options for a long-term solution—potential partnering with local institutions and partner agencies and development of a collaborative funding strategy
- Designate a multi-disciplinary EOC team staffed by the City's senior directors

## Recommendation Three

Consolidate information from technical studies and conduct additional analysis:

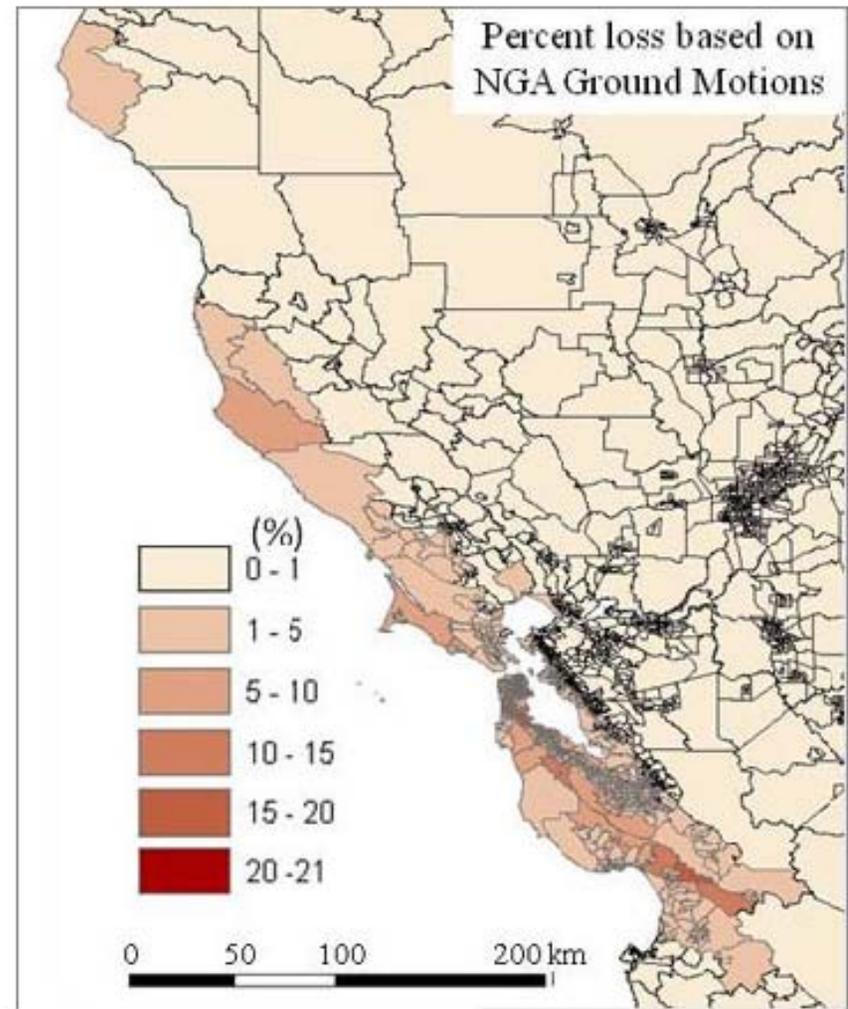
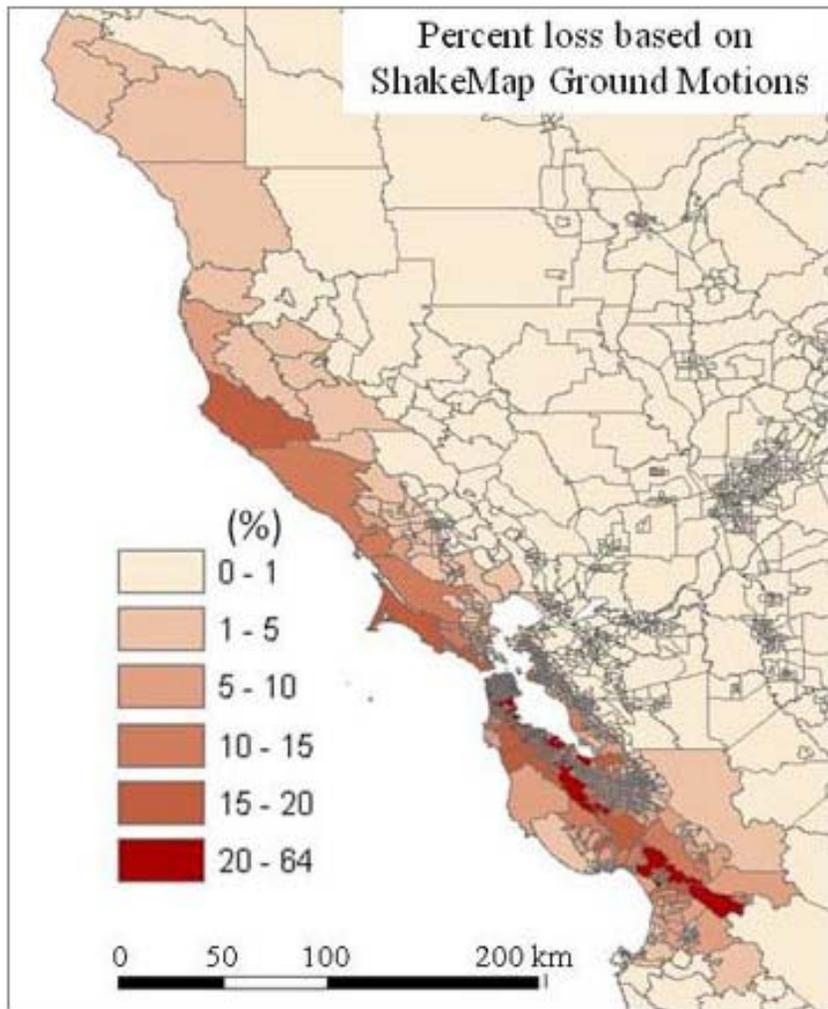
- Information clearinghouse
- Palo Alto's local risk conditions need further study
- Bolster annual services survey
- Advise IBR Commission to examine disaster/seismic resilience of facilities & systems

## Synthesizing Available and Needed Information

- The City would benefit from a repository for the disaster readiness technical information
- Information management and coordination are key issues
- Compilation of disaster-related budget information is crucial to future decision-making

## Data Studies Needed

- Development of disaster loss estimates using the federal assessment method, HAZUS
- Tracking community readiness using the City's annual public services survey as a vehicle for outreach and data gathering
- Using quantified information as basis for planning and risk reduction decisions



Distribution of percent loss, calculated as the ratio of economic loss due to building damage to building replacement value times 100, for each census tract. (State of California Department of Conservation)

## Leverage Commission Study Findings

- Refer the issue of disaster/seismic vulnerability to the City's Infrastructure Blue Ribbon Commission
- Potentially sub-standard essential services facilities and systems need review
- Link findings to the commission's current activities for the 2011 report to the City Council

# Fiscal Considerations

# Financial Strategies

- Report recommendations can be addressed through short-term budget adjustments
- Consider and plan for least-expected conditions
- Long-term recovery issues—post-disaster economic well-being and community development—warrant deeper scrutiny

# **Promising Practices in Disaster Readiness**

## Metrics of Readiness

- Defining measures to quantify actual readiness
- Regional efforts on natural disaster preparedness are inconsistent; fewer cities maintain programs
- San Francisco emerges as a promising model with sophisticated response systems, community organizing/preparedness, and ongoing risk reduction initiatives

# CAPSS: Community Action Plan for Seismic Safety



HOME

ABOUT the  
PROJECT

ADVISORY  
COMMITTEE

SF and  
EARTHQUAKES

NEWS and  
REPORTS

CONTACT US

## Can San Francisco Recover from the Next Big Quake?

**A significant earthquake could make more than 25,000 buildings in San Francisco unsafe to occupy.**

**This level of damage would kill hundreds, injure thousands, spark**

## A Community Plan for Earthquake Safety

**The purpose of the Community Action Plan for Seismic Safety (CAPSS) project was to provide the San Francisco Department of Building Inspection a plan of action to reduce earthquake risks.**

## The CAPSS Project

**The CAPSS project was launched because city leaders are deeply concerned about reducing earthquake risk before the next major earthquake strikes.**

**As a community effort, the CAPSS project was guided by a volunteer Advisory Committee, which included**

# Next Steps

# Community Resilience as the New Norm

- National studies and program examine the concept of “resilience”
- Addressing the City’s broad portfolio of risk
- Palo Alto’s policy objectives fit state-of-the-art thinking to incorporate preparedness, mitigation, response and recovery

# Urban Resilience Policy

## Arrietta Chakos

[arrietchakos@gmail.com](mailto:arrietchakos@gmail.com)

[arrietchakos.com](http://arrietchakos.com)