

Bay Area UASI Grant Effectiveness Report

Building Regional Capabilities to Reduce Risk

November 2012



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Executive Summary

BACKGROUND AND PURPOSE OF THE REPORT

The U.S. Department of Homeland Security's (DHS) Urban Areas Security Initiative (UASI) program is designed to assist high threat urban areas in preparing to prevent, protect against, respond to, and recover from threats and acts of terrorism and other major hazards. The purpose of this report is to qualitatively and quantitatively document the efforts made by Northern California's 12-county Bay Area UASI region in building capabilities, reducing risk from terrorism and other hazards, and enhancing overall regional preparedness through investments funded by the UASI grant program.

The analysis focuses on the expenditure of \$52 million in UASI funds over the period of October 2009 to October 2011, the implementation of the eight National Homeland Security Priorities and the goals and objectives in the *Bay Area Homeland Security Strategy* ("Strategy"), a comparison of regional capability assessments from calendar years 2009 and 2011 involving the DHS Target Capabilities List (TCL)¹, and how resources have been allocated across the homeland security mission areas of prevention, protection, response, and recovery. Finally, the report also evaluates the direct impact of 2012 cuts in the Bay Area's UASI grant program allocation.

RISK AND CAPABILITIES

Managing risk is at the core of the Bay Area's homeland security efforts. Through the UASI grant program, the Bay Area has developed a sophisticated risk management program involving people, processes, and analytic software systems. This allows the region to determine which terrorism threats and other hazards pose the greatest risk to the region, which capabilities are most needed to address those threats and hazards, and what level of ability the region possesses in each of the necessary capabilities and where the capability gaps are.

Risk can be expressed as a number or value in order to make comparisons. It is calculated by DHS based on threat, vulnerability, and consequence: $\text{Risk} = \text{Threat} \times \text{Vulnerability} \times \text{Consequence}$. The Bay Area follows this equation in defining risk to the region. The Bay Area's risk environment is a complex one involving terrorism, crime, natural hazards, and industrial and other accidents. The terrorism scenarios and natural hazards that pose the greatest risk to the Bay Area are listed below in rank order:

¹ The report uses the TCL instead of the new Core Capabilities released in 2011 by DHS as part of the National Preparedness Goal, because all of the UASI funding spent during the covered time frame occurred under the TCL framework as the Core Capabilities were not yet in place.

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Rank	Terrorism Scenarios	Natural Hazards
1	Vehicle Borne Improvised Explosive Device	Flood
2	Aircraft as a Weapon	Earthquake
3	Improvised Explosive Device	Wildfire
4	Contagious Biological	Wind
5	Cyber Attack	Ice

Consistent with federal guidance and frameworks, the Bay Area’s risk management program has identified 15 capabilities from the TCL that are the most “risk relevant.” This means the capabilities are vital in order to effectively prevent, protect against, respond to, and recover from the threats and hazards that represent the greatest risk to the region. The 15 capabilities listed in priority order are:

Rank	Local Priority Target Capabilities
1	Risk Management
2	Counter-Terror Investigation and Law Enforcement
3	Critical Infrastructure Protection
4	Information Gathering and Recognition of Indicators and Warnings
5	Planning
6	Emergency Public Safety and Security Response
7	On-Site Incident Management
8	Responder Safety and Health
9	Communications
10	Intelligence Analysis and Production
11	Intelligence and Information Sharing and Dissemination
12	Emergency Operations Center (EOC) Management
13	Fatality Management
14	Medical Surge
15	Emergency Public Information and Warning

In addition to these 15 local priority capabilities, the Bay Area has identified seven additional capabilities that are a national priority, as determined by DHS, each of which is ranked in priority order as determined by the Bay Area:

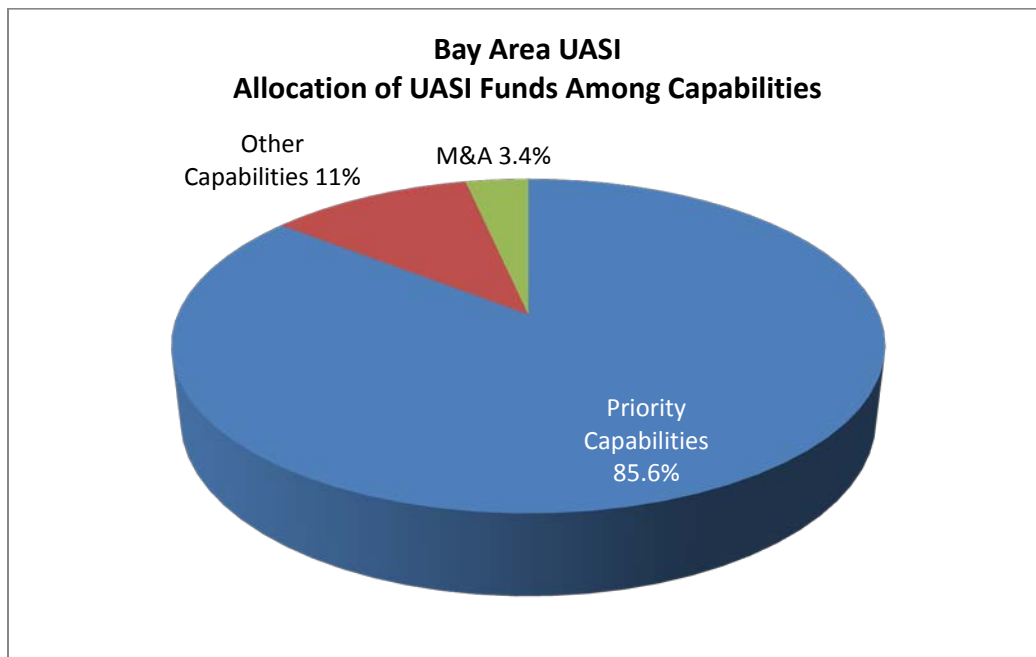
Rank	National Priority Target Capabilities
1	Chemical Biological Radiological Nuclear Explosives (CBRNE) Detection
2	Explosive Device Response Operations
3	Weapons of Mass Destruction (WMD) Hazardous Materials (HazMat) Response and Decontamination
4	Community Preparedness and Participation
5	Citizen Evacuation and Shelter In-Place
6	Mass Care
7	Mass Prophylaxis

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These 22 capabilities in total represent the Target Capabilities most needed to reduce risk by implementing both the Bay Area's and the nation's homeland security priorities within the region.

THE UASI GRANT PROGRAM INVESTMENTS AND CAPABILITY ENHANCEMENTS

The UASI program is enhancing and sustaining priority Target Capabilities in the Bay Area. In 2009 and in 2011, the Bay Area conducted a regional capability self-assessment based on the TCL. In-between the two assessments, the region spent approximately \$52 million of UASI funds involving multiple grant years.² The funds spent in-between the two assessments were heavily invested in the 22 priority Target Capabilities, with approximately \$45 million (or roughly 86%) of the funds allocated among them. This means the region has been allocating its UASI funding based on its risk profile by funding the capabilities most necessary to mitigate the risk. The percentage allocation of the \$52 million is outlined in the chart below across three categories: priority capabilities, other capabilities, and management and administration (M&A) of the grant.



The results of the 2009 and 2011 capability assessments show that the \$45 million contributed to improvement or sustainment in capability levels among *all* of the 22 priority capabilities. This is outlined in the capability assessment comparison chart below. For both the 2009 and 2011 assessments, capability levels were organized into four quartiles: Low, Medium-Low, Medium-High and High. The chart below highlights the amount of funding allocated toward each of the 22 priority capabilities from 2009 through 2011, the capability level as of October 2011, and whether the capability is trending positively,

² The \$52 million comes from UASI grant years FY 2007 through FY 2010.

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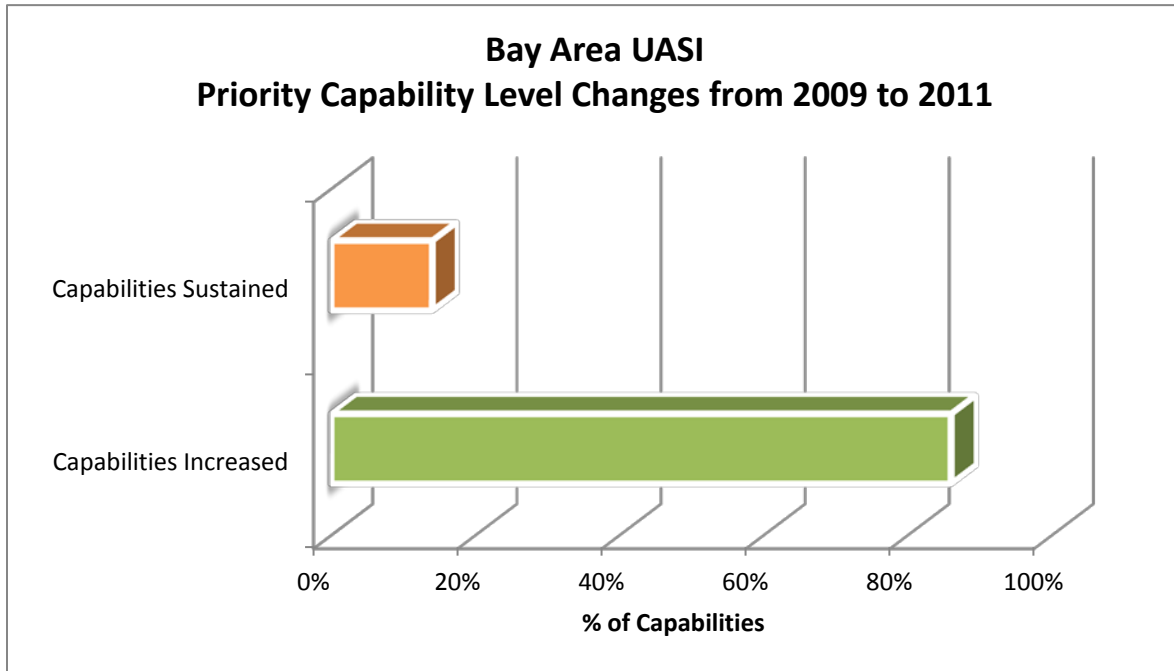
negatively, or is remaining constant from one assessment to the next. Finally, the gap analysis column outlines whether the capability level is sufficient to address the terrorism scenarios that pose the greatest risk to the Bay Area.

Bay Area UASI Capability Self-Assessment Results

Bay Area Priority	Target Capability	UASI Funding	2011 Level of Ability	Capability Trend	2011 Gap Analysis
1	Risk Management	\$1,006,373	Medium Low	Improved	Needs Extra Attention
2	Counter-Terror Investigation and Law Enforcement	\$3,097,682	Medium Low	Sustained	Needs Extra Attention
3	Critical Infrastructure Protection	\$2,324,506	Medium Low	Improved	Needs Attention
4	Information Gathering and Recognition of Indicators/Warnings	\$2,368,669	Medium Low	Sustained	Needs Extra Attention
5	Planning	\$3,094,860	Medium Low	Improved	Needs Extra Attention
6	Emergency Public Safety and Security Response	\$2,596,102	Medium Low	Improved	Needs Attention
7	On-Site Incident Management	\$1,249,556	Medium Low	Improved	Needs Attention
8	Responder Safety and Health	\$537,308	Medium Low	Improved	Needs Attention
9	Communications	\$13,148,754	Medium Low	Improved	Needs Attention
10	Intelligence Analysis and Production	\$2,381,983	High	Sustained	Adequate
11	Intelligence and Information Sharing and Dissemination	\$3,956,844	Medium High	Improved	Needs Attention
12	Emergency Operations Center Management	\$1,886,606	Medium High	Improved	Needs Attention
13	Fatality Management	\$206,160	Medium Low	Improved	Needs Attention
14	Medical Surge	\$384,184	Medium Low	Improved	Needs Attention
15	Emergency Public Information and Warning	\$784,761	Medium Low	Improved	Needs Attention
National Priority Capabilities	CBRNE Detection	\$22,706	Medium Low	Improved	Needs Attention
	Explosive Device Response Operations	\$1,023,383	High	Improved	Adequate
	WMD/HazMat Response and Decontamination	\$1,595,444	Medium High	Improved	Adequate
	Community Preparedness and Participation	1,639,763	Medium Low	Improved	Needs Attention
	Citizen Evacuation and Shelter In-Place	\$310,949	Low	Improved	Needs Attention
	Mass Care	\$679,192	Medium Low	Improved	Adequate
	Mass Prophylaxis	\$312,756	High	Improved	Adequate

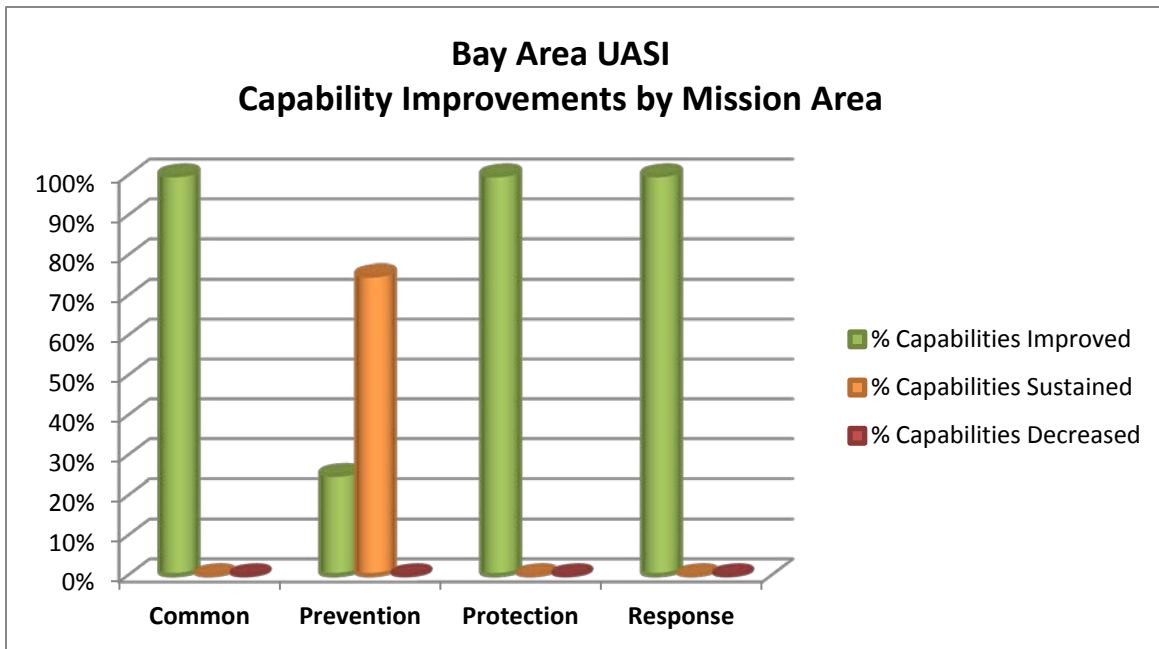
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From 2009 through 2011, the Bay Area improved in 19 of the priority capabilities, which accounts for over 86% of all of the priority capabilities. The remaining 3 priority capabilities sustained their levels of ability, all of which is noted in the capability trend column above. In no case did the level of ability drop among any of the priority Target Capabilities (local or national) in-between the two assessments. The figure below summarizes the capability gains and sustainment over the covered time period.



While capability trends were either positive or sustained among all the priority Target Capabilities, there were only five capabilities deemed fully adequate to address the region's risk profile. These were Intelligence Analysis and Production, Explosive Device Response Operations, WMD/HazMat Response and Decontamination, Mass Care, and Mass Prophylaxis. For these five capabilities, the Bay Area's goal is to continue to sustain levels of ability. For all other priority capabilities, the Bay Area's goal remains attaining an adequate level of capability to address the region's risk profile.

The Bay Area's priority capability improvements span much of the spectrum of homeland security activities. The figure below summarizes the capability gains across four of the homeland security mission areas: prevention, protection, response, plus the common mission area. In the common, protection and response mission areas, the Bay Area saw improvement in 100% of the priority capabilities in each mission area. While the prevention mission area saw improvement in only 25% of its applicable priority capabilities, the remaining 75% of capabilities were sustained. No priority capabilities decreased. Finally, the recovery mission area is not accounted for, as no priority capabilities fall under that mission area at this time.



BAY AREA UASI CAPABILITIES IN ACTION

The UASI funded investments made across capabilities have had a demonstrable impact on capability improvement. The following highlights four major areas where those improvements can be found: risk management and planning, intelligence and critical infrastructure protection, regional emergency response, and interoperable communications. In virtually all cases, the capability enhancements have been “dual use.” This means while the investments were made primarily to strengthen capabilities to address terrorism, the capability enhancements enable the region to also address other hazards to include conventional crime, i.e., drug cartels, and naturally caused disasters, i.e., earthquakes. This dual usage of capabilities is an efficient use of scarce resources and enables the Bay Area to more effectively manage all hazards.

Risk Management and Planning

The UASI program’s mandated governance structure has transformed the way cities, counties, and the private sector work together in the Bay Area to enhance regional preparedness and security. Governed by a multi-year memorandum of understanding between the participants, the Bay Area UASI is managed through a three-tiered governance structure. This includes an Approval Authority that serves as a regional executive board for policy making, an Advisory Group made up of a wide variety of regional stakeholders that serves as a policy clearinghouse for the Approval Authority, and a Management Team made up of public safety and management professionals that oversees the grant and helps

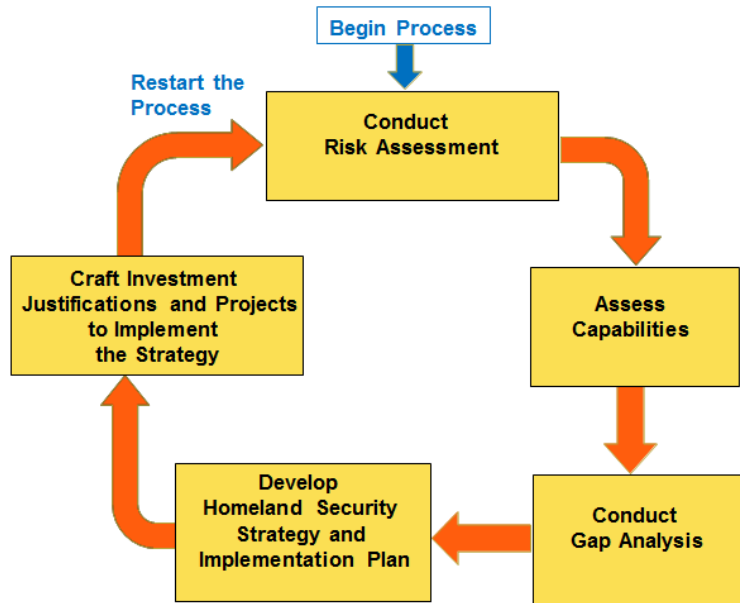
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implement policy and programs. The Bay Area’s governance structure is widely viewed as a homeland security “best practice.”³

During the 2009 through 2011 covered time period, the Bay Area allocated approximately \$4.1 million for its priority risk management and planning capabilities, which allowed the region to acquire a comprehensive risk management software system and regional planners, conduct risk and capabilities assessments, and produce a revised homeland security strategy based on the new risk and capability data.

Bay Area UASI Risk Management and Planning Process

As required by the UASI program, the Bay Area has developed a DHS - approved regional homeland security strategy and planning structure designed around implementing National Homeland Security Priorities at the regional level. The purpose of the homeland security strategy is to provide both a blueprint for comprehensive, enterprise-wide planning and risk management for homeland security efforts, and a strategic guide for the use of related federal, state, local, and private resources within the region. The Bay Area’s overall risk management and planning process is summarized in the figure above.



To ensure its *Strategy* is based on reducing risk to the region through enhanced capabilities, the Bay Area has invested UASI funds in the Risk Analysis Center (RAC) software platform. The RAC allows the region to engage in sophisticated terrorism and natural hazards risk assessments, determine which capabilities are needed to mitigate the identified risk, understand where the gaps are in those capabilities, and use that combined data to drive specific regional goals, objectives, and projects in support of implementing the *Bay Area Homeland Security Strategy*.

In addition to regional planning, the Bay Area has also developed a comprehensive regional training and exercise program. At the center of this program is the UASI-funded full scale preparedness exercise, Urban Shield. This exercise is a multi-day event involving dozens of local, state and federal agencies and thousands of responders that tests a variety of Target Capabilities based upon terrorism and other hazards.

³ See, *Emergency Management Magazine*, Bay Area UASI’s Governance Structure Aids Collaboration, Coordination in California, (April 30, 2010) accessed at <http://www.emergencymgmt.com/disaster/Bay-Area-UASIs-Governance.html>.

Intelligence and Critical Infrastructure Protection

The Bay Area spent approximately \$10.1 million from October 2009 through October 2011 on its priority terrorism prevention and protection capabilities. At the center of the region’s counter terrorism efforts is the Northern California Regional Intelligence Center (NCRIC), which is the Bay Area’s nationally renowned “All Crimes Fusion Center.” The NCRIC operates under the unified command of the Bay Area’s High Intensity Drug Trafficking Area (HIDTA) and is co-located with the region’s Joint Terrorism Task Force (JTTF). The NCRIC helps safeguard the region by disseminating intelligence and facilitating communications between federal, state, and local agencies and private sector partners to help them take action against terrorism, gangs, drug trafficking organizations, and serial crimes.



The NCRIC has catalogued and prioritized over 8,500 assets in the Bay Area across 18 National Infrastructure Protection Plan sectors including the commercial sector, information technology, government, energy, finance and others. The NCRIC also supports the Bay Area’s UASI funded Terrorism Liaison Officer (TLO) program. TLOs are trained public safety personnel whose purpose is to improve information-sharing among and between public safety agencies and the private sector. TLOs achieve this by working with the NCRIC as a conduit for homeland security information-sharing from the field to the fusion center for analysis, and from the fusion center to the field for action. By the end of calendar year 2011, there were 1,717 fully trained and certified TLOs operating in the Bay Area.

The TLOs have been instrumental in collecting suspicious activity reports (SARs) for analysis. These SARs are critical indicators and potential warnings of terrorist pre-operational planning and logistics. The NCRIC is the single largest provider of SARs to the FBI that result in the FBI taking counter terrorism action. A summary of all of the NCRIC’s operational, preparedness, and analytical support to the region’s homeland security efforts from 2009 through 2011 is outlined in the figure below:

NCRIC Support to the Bay Area

Products Delivered to Stakeholders	Suspicious Activity Reports Given to the FBI	Major Vulnerability Assessments	Criminal Cases Supported	JTTF Requests For Information Support	TLO Training	Law Enforcement Training
220 intelligence products	381 SARs reported to FBI	54 critical infrastructure site assessments	1,395 Cases	418 RFIs	109 courses and 4,319 TLOs trained	389 courses and 16,551 students trained

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In 2011, for every \$1 invested in law enforcement initiatives, the NCRIC/HIDTA generated an average return on investment (ROI) of \$986.58 in drug seizures and \$4.89 in cash and asset seizures, for a total ROI of \$991.48 for drugs and assets seized. Drug and asset seizures have increased by over \$2 billion since 2006 and the ROI of every dollar expended has increased by \$688.08 since that year. This is reflected in the table below:

NCRIC Return on Investment

Year	2006	2007	2008	2009	2010	2011
Seized	\$662,427,559	\$513,214,272	\$1,156,045,674	\$1,766,521,094	\$1,097,661,392	\$2,723,564,842
ROI	\$303.40	\$262.49	\$570.89	\$684.04	\$421.44	\$991.48

In order to test and validate levels of capability, the NCRIC has undergone several federally overseen assessments in recent years starting in October 2010 with the most recent concluding in 2011. The assessments focused on four Critical Operational Capabilities (COCs) and Enabling Capabilities (ECs) for fusion centers:

- **COC 1:** Ability to receive classified and unclassified information from federal partners;
- **COC 2:** Ability to assess local implications of threat information through the use of a formal risk assessment process;
- **COC 3:** Ability to further disseminate threat information to other state, local, tribal, territorial, and private sector entities within their jurisdiction; and
- **COC 4:** Ability to gather locally generated information, aggregate it, analyze it, and share it with federal partners as appropriate.
- **EC 1:** Privacy, Civil Rights, and Civil Liberties
- **EC 2:** Sustainment
- **EC 3:** Communications
- **EC 4:** Security



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In 2011, the NCRIC achieved the highest possible score in all four ECs and two out of the four COCs, as reflected in the figure above. Among the new ECs, the NCRIC was one of the first fusion centers in the nation to acquire a U.S. Department of Justice and DHS-approved privacy policy.

For all of its accomplishments, which include being named a “best practice” by the Director of National Intelligence in 2012, the NCRIC and its leadership have been formally recognized for their achievements at national level forums. In April 2012, NCRIC Director Ronald E. Brooks received the highest individual State and Major Urban Area Fusion Center Award as the Representative of the Year, and NCRIC Supervising Lead Analyst Jim Paterson was awarded the Michael Schooler Award for Excellence in the Field of Infrastructure Protection.

Regional Emergency Response

With just over \$11.5 million dedicated to priority response capabilities during the covered time period, the UASI program has been essential to enhancing incident management involving a wide array of threats and hazards across the Bay Area. For example, through the Urban Shield full scale exercise, the Bay Area’s law enforcement tactical teams, such as Special Weapons and Tactics (SWAT) teams, have shown steady improvement in their ability to assess an incident, develop an initial incident action plan, and properly identify terrorists versus hostages, and employ necessary tactics to address the terrorist threat. Today, the teams are further able to use scouts to gather on-site intelligence, communicate among team members, and can more effectively and safely move through large open spaces during an incident, such as one involving an active shooter.



The Bay Area’s thirteen FBI certified public safety bomb squads have increased their capabilities dramatically through the addition of UASI-funded explosive device response operations equipment and training. This was demonstrated on September 13, 2011, when the San Jose Police Department’s bomb squad rendered safe four IEDs found inside a home in downtown San Jose. The squad members used the UASI-funded QinetiQ Dragon Runner™ 20 robot to safely remove the four devices remotely. Before obtaining this robot, the San Jose bomb technicians would have been required to render safe these devices in person.

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The region's investment of UASI funds in search and rescue teams has enhanced the teams' capabilities throughout the region. They are now able to conduct safe and effective search and rescue operations at structure incidents involving the collapse or failure of heavy wall construction caused by an earthquake or vehicle-borne improvised explosive device (VBIED). These teams are also capable of conducting high angle rope rescue, confined space rescue, and trench and excavation rescue.

UASI funding has supported improvement in Emergency Operations Center (EOC) management during a large-scale disaster encompassing multiple counties in the Bay Area. This includes the ability to shift from the primary to back-up EOC sites to ensure the EOCs are in a functional state of readiness and that continuity of command and control can be maintained if a transition is necessary during an incident.

Finally, under the UASI program, the region is leading the development of a regional mobile field force capable of overseeing large-scale operations, including managing large and violent crowds, traffic control enforcement, and general saturation presence for the purpose of maintaining order and preserving the peace to include in environments involving CBRN hazards. This highly trained and specially equipped regional asset can respond 24 hours a day, 7 days a week, to emergencies occurring anywhere in the Bay Area.

Interoperable Communications



The Bay Area has developed a strategic plan to achieve region-wide interoperable communications among emergency responders, as defined by the SAFECOM Interoperability Continuum, and in coordination with the California Statewide Communications Interoperability Plan (CalSCIP). The strategic plan introduced the Bay Regional Interoperable Communications System (BayRICS) as the vision for communications interoperability in the region. The Bay Area spent \$13.1 million from the 2009 through 2011 time

period to implement this vision and enhance interoperability among responders through equipment, training and exercises.

In 2010, the Bay Area's interoperable communications capabilities were successfully tested by DHS pursuant to the National Emergency Communications Plan Goal 1. Goal 1 called for 90% of all high-risk urban areas designated within the UASI program to be able to demonstrate, by 2010, "response-level emergency communications within one hour for routine events involving multiple jurisdictions and agencies."⁴ The successful interoperable

⁴ U.S. Department of Homeland Security, Office of Emergency Communications, *National Emergency Communications Plan*.

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communications test took place during the Amgen Tour of California Bike Race involving 160 bicycle racers from around the globe and covering more than 750 miles in the Bay Area. It is one of the largest cycling events in the United States. Approximately 100 emergency response personnel from state and local agencies supported the event. Most recently, in October 2012, the region successfully used a portion of its UASI funded communications system to support dozens of agencies and hundreds of local responders across a regional emergency operations center, five counties in the Bay Area, eight area commands, and at over 40 incident sites during the 48 hour Urban Shield full scale exercise.

REMAINING CAPABILITY GAPS

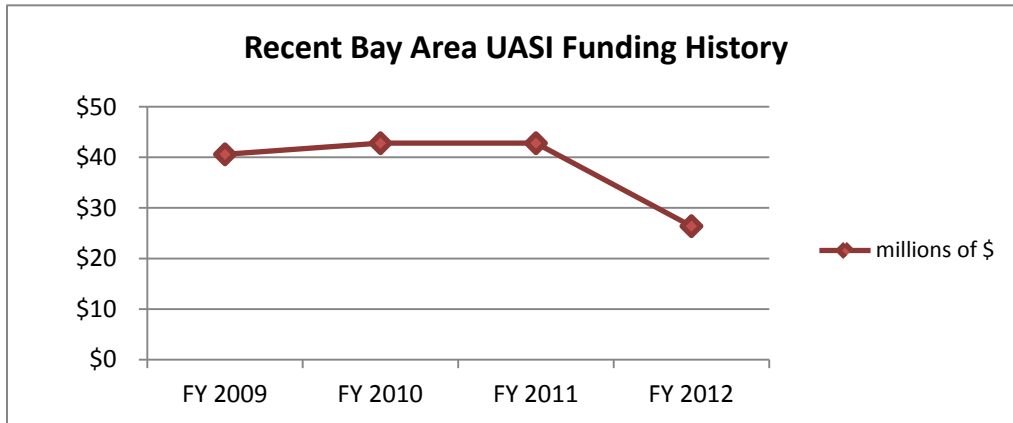
Despite the region's capability improvements, gaps in overall level of ability remain among 22 of the 37 Target Capabilities. Among those 22 Target Capabilities with remaining gaps, 17 are *priority capabilities*. This is due to the fact that despite capability improvements in priority capabilities, in 2011, the Bay Area's risk profile, as determined by DHS, actually increased as compared to prior years, and the Bay Area's understanding of that risk improved as evidenced by an increase in the region's level of ability in the Risk Management Target Capability. The increase in risk requires a greater level of ability among those Target Capabilities most needed to mitigate that risk from a prevention, protection, response, and recovery perspective. The Bay Area is committed to building those capabilities, but will need UASI funding to support those efforts.

SUSTAINMENT AND THE IMPACT OF FUNDING CUTS

It takes time and resources to build capabilities and then to sustain them. In addition to UASI funds, the Bay Area spends tens of millions of local dollars each year to build and sustain the public health and safety infrastructure for the region through law enforcement, fire service, public health, public works, and emergency medical and emergency management, etc.

In FY 2012, the Bay Area suffered a massive reduction in UASI funds, going from \$42.8 million in FY 2011 to \$26.4 million in FY 2012, a 39% reduction. This reduction occurred despite the fact that the region's relative risk score as calculated by DHS (and compared to other urban areas across the nation) actually *increased* in FY 2012 (calendar year 2011). A comparative summary of recent Bay Area UASI funding is set forth in the chart below:

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These recent cuts put in jeopardy the capability gains made over the last several years and make it far more difficult for the region to enhance vital capabilities needed to address the risk from terrorism and other hazards. As a consequence of these cuts, the Bay Area has been forced to cancel projects designed to implement the region's interoperable communications plan, improve equipment capabilities for several public safety bomb squads around the region, provide first responder personal protective equipment for CBRNE incidents, supply search and rescue equipment to the fire service, provide evacuation supplies for people with access and functional needs, and much more.

The capabilities developed using UASI and other grant funds supplement local expenditures and allow the Bay Area to build toward enhanced capability levels designed to support federal missions, which include counter-terrorism, homeland security, and catastrophic incident response. Without such funding, the Bay Area would not have the resources to develop such capability levels to meet those missions, let alone sustain them. Without UASI funding, much of the gains made over the years in the Bay Area as outlined in this report will be at risk.

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Section 1

Introduction and Background

In June 2011, Northern California's 12-county Bay Area region developed the nation's first preliminary effectiveness report on the Department of Homeland Security's (DHS') Urban Areas Security Initiative (UASI) grant. That report involved a broad evaluation of the effectiveness of UASI grant funds spent in the region covering federal fiscal year (FY) 2006 through FY 2010. The purpose of this follow-on report is to further qualitatively and quantitatively document the efforts made by the Bay Area UASI in building capabilities, reducing risk from terrorism and other hazards, and enhancing overall regional preparedness through investments funded by the UASI grant program.

1.1 About the Urban Areas Security Initiative

Created in 2003 in the wake of the September 11, 2001 terrorist attacks against the United States by al-Qaeda, the UASI program is the **only** federal homeland security grant program that **requires** regional governance, strategic planning and investing that involves all disciplines - law enforcement, fire service, public health and medical, public works, critical infrastructure owners and operators, and emergency management - in order to acquire the necessary plans, organization, equipment, training and exercises to prevent, protect against, respond to, and recover from threats and acts of terrorism and other major hazards. From FY 2003 to FY 2012, approximately \$7 billion has been appropriated for this program nationally. The Bay Area UASI has been a member of the UASI program since the program's inception in FY 2003.

The UASI program goes to the heart of one of the 9/11 Commission's recommendations: allocate homeland security grants based upon risk by funding high threat, high density urban areas where threats often begin and ultimately seek to materialize.⁵ The risk of terrorism against the U.S. today is more complex and diverse than it was on September 11, 2001. The al-Qaeda network has become a franchise with affiliates in Yemen, Somalia, Pakistan, and elsewhere that have trained or inspired foreigners and Americans to plot and commit acts of terror in numerous locations across America.

Today, there are 64 UASI regions across the United States based on a risk analysis of the 100 largest metropolitan statistical areas by DHS. These UASI regions range from New York City to Columbus to Chicago to the Bay Area UASI. However, due to federal budget cuts, in FY 2011, DHS cut 33 of those UASI regions from the UASI list for future funding purposes. While the Bay Area remained a member of the program in FY 2011, it suffered deep cuts in UASI funding in FY 2012.

⁵ The National Commission on Terrorist Attacks Upon the United States, *The 9/11 Commission Report*, (2004), page 396.

1.2 About the Bay Area UASI

The Bay Area UASI is located in northern California and is comprised of 12 counties (Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Santa Cruz, Solano, Sonoma, Monterey, and San Benito) and the two major cities of Oakland and San Jose (San Francisco is a consolidated city and county government). The twelve counties are inclusive of over 100 incorporated cities and a combined total population exceeding 7.5 million people.

In addition to the 7.5 million residents, the Bay Area attracts 15.9 million visitors annually who spend more than \$16.6 million per day in the region. The Bay Area is one of the most culturally diverse regions in California. The Bay Area is one of the nation's top exporting regions, ranking second only to the New York-New Jersey metropolitan area in the value of its exports.

With just over 800,000 residents, San Francisco is the 4th most populous city in California and the most densely populated major city in the state. San Jose is the third largest city in California with Oakland being the eighth largest in the state. A map of the current Bay Area UASI is set in Figure 1.

In addition to its large population, there are approximately 8,500 critical infrastructure and key resource assets in the entire Bay Area that cover all 18 *National Infrastructure Protection Plan* (NIPP) sectors. These assets include such iconic sites and businesses as the Pyramid Building, the Golden Gate Bridge, Apple, Oracle, Google, Intel, Adobe, Hewlett-Packard, the Bay Area Rapid Transit Authority, Yahoo!, eBay, Candlestick Park, Stanford University, the Oakland Coliseum, the Ports of San Francisco and Oakland, and many more. There are six professional sports teams in the region representing the National Football League, National Hockey League, National Basketball Association and Major League Baseball, all playing to sell-out crowds. The region is also home to several major government facilities, including Travis Air Force Base, the Federal Reserve Bank of San Francisco, the National Aeronautics and Space Administration (NASA) Ames Center, the San Francisco Mint, the Defense Language Institute, and the Naval Postgraduate School.

Figure 1: Bay Area UASI Region



1.3 Grant Effectiveness and Preparedness Overview

The term "preparedness" refers to capabilities necessary for providing the means to prevent, protect against, respond to, and recover from major incidents by performing critical tasks, under specified conditions, to target levels of performance.⁶ Capabilities are developed and delivered by appropriate combinations of planning, organization, equipment, training, and exercises.

“Capabilities-Based Preparedness” is a way to make informed choices about how to manage the risk and reduce the impact posed by potential threats and hazards. It focuses on building and maintaining capabilities to achieve the eight National Homeland Security Priorities and four homeland security mission areas: prevention, protection, response and recovery.⁷ A description of the four mission areas is attached as Appendix A and a list of the eight National Priorities is listed in Table 1 below. The National Priorities were developed by DHS and represent broad and thematic goals that the nation should strive to achieve in homeland security.

Table 1: The National Homeland Security Priorities

Implement the National Incident Management System (NIMS) and the National Response Framework (NRF)
Implement the National Infrastructure Protection Plan (NIPP)
Expand Regional Collaboration
Strengthen Chemical, Biological, Radiological, Nuclear and Explosive (CBRNE) Detection, Response and Decontamination Capabilities
Strengthen Information Sharing and Collaboration Capabilities
Strengthen Interoperable and Operable Communications Capabilities
Strengthen Planning and Citizen Preparedness
Strengthen Medical Surge and Mass Prophylaxis Capabilities

⁶ U.S. Department of Homeland Security, *National Preparedness Guidelines* (2007), page 30. In 2011, Presidential Policy Directive (PPD) 8 (National Preparedness) adopted mitigation as a homeland security mission area and called for the creation of a new National Preparedness Goal (NPG). The NPG, issued in September 2011 by DHS, included a set of 31 new Core Capabilities, which are necessary to address a wide range of threats and hazards. The Core Capabilities serve as the successor to the Target Capabilities List (TCL) and align with the new five mission areas (prevention, protection, mitigation, response and recovery). While this report is based on the TCL and the four mission areas due to that framework being in place over most of the covered time period in the report, future effectiveness reports issued by the Bay Area will likely be centered on the region’s implementation of the new Core Capabilities.

⁷ Id.

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For purposes of this report, unless otherwise noted, the terms “capability” or “capabilities” refer to the 37 capabilities outlined in the DHS Target Capabilities List (TCL) which is attached as Appendix B. The TCL are those 37 capabilities divided among the four mission areas, plus the common mission area, that are needed to implement and achieve the National Priorities.

For purposes of this report, the term “effectiveness” means the expenditure of funds and other resources based upon risk that increase or sustain, in a demonstrable way, those **capabilities** needed in order to reduce the highest **risk** terrorism incidents and other catastrophic events faced by the Bay Area UASI. When measuring or analyzing the effectiveness of the UASI program, one is essentially analyzing the outcomes produced by the investments made by urban areas with UASI funds. Ultimately, the effectiveness of an investment is best measured by how the capability it was designed to build, enhance or sustain performs in a real world incident.

1.3.1 The Preparedness Cycle

Preparedness is a cyclical process, as opposed to a linear endeavor in which there is a defined end. This explains why the term “preparedness cycle” is used by DHS and others to explain the preparedness process as set forth in Figure 2. When it comes to preparedness there is no “end state”, because risks change, plans need updating, training for new personnel is required, and equipment is replaced or upgraded, and so on. As long as there are risks, there will be a need to prepare for them and resource those preparedness efforts.



1.3.2 Measuring Grant Effectiveness

Measuring effectiveness of a grant program or overall preparedness is not simply a scientific equation. Thus, use of equations and percentages when discussing preparedness and capabilities, while useful, can at times be misleading, as they may present a false sense of precision that otherwise does not exist in such a dynamic and complex environment as homeland security and domestic preparedness. Nor is grant effectiveness or preparedness adequately measured by looking at the United States as a single operating entity, which it is not. Rather, our nation is a vast network of independent actors - towns, villages, cities, counties, states, the private sector and federal departments and agencies - that must unify as much as possible to achieve homeland security priorities and perform critical operational tasks before, during, and after an incident. As such, reports such as this one provide a detailed and meaningful review of how capabilities at the local and regional level – where they are most often needed and used – have either improved, been sustained, or decreased over time as a result of UASI funding.

Section 2

Methodology and Assumptions

This section outlines both the methodology used to develop the report and several of the key assumptions behind the methodology. The report uses a range of regional data sources on terrorism and natural hazard risk, capabilities, and data on UASI grant expenditures to draw conclusions on the efforts the Bay Area has made using the UASI program to build capabilities, reduce risk, and enhance regional preparedness

2.1 Methodology

The analysis focuses on the expenditure of approximately \$52 million in UASI funds from FY 2007 through FY 2010.⁸ The report evaluates whether any improvements have been made in the Bay Area's overall preparedness as a result of receiving these grant funds. The analysis began by compiling relevant data sources from Bay Area UASI stakeholders, including:

- The *Bay Area Homeland Security Strategy*
- Risk analysis and capabilities assessment data
- Financial data from grant reporting processes that track investments
- Quantitative and qualitative performance data from training, exercises, and real-world incidents
- Interviews with local subject matter experts on a variety of topics

Analysts used these different data inputs to identify linkages across risk, capabilities, and historical spending, taking into consideration relevant analytic frameworks such as the TCL, homeland security mission areas, and the *Bay Area Homeland Security Strategy*. What followed was an analysis of correlations between historical grant expenditures and:

- The National Homeland Security Priorities
- The Bay Area's homeland security strategic priorities
- The Target Capabilities List
- The homeland security mission areas
- Real world incidents and major regional exercises

This analysis allowed the region to evaluate how investments ultimately impacted various capabilities from the TCL throughout the region in support of national and regional homeland security priorities and goals with an emphasis on how these capability enhancements have impacted real world operations in the Bay Area.

⁸ The \$52 million comes from UASI grant years FY 2007 through FY 2010. Included in the \$52 million is approximately \$1.8 million that was spent on management and administration of the grants.

2.2 Assumptions

Several assumptions and caveats are applicable to the overall research methodology used to evaluate the Bay Area's investments. The analysis focuses specifically on UASI grant funding from FY 2007 through FY 2010 and its impacts over the three year period in which it was spent. However, some of the projects and initiatives analyzed were not exclusively funded by the UASI program. In certain cases, funding was also provided by other homeland security and public health preparedness grant programs, or local funds, etc. This is to be expected, as DHS encourages its grantees to leverage multiple funding sources to build and sustain capabilities.

While the TCL is a central feature of the analysis, the allocation of dollars among Target Capabilities is an inexact science. The available data are currently captured in different formats and reside in separate systems. Moreover, the 37 Target Capabilities are not isolated from each other. Rather, they overlap one another with elements of one capability present in another or even several others. This complicates but does not preclude a process of aggregating existing information and conducting a broader meta-analysis of grant effectiveness involving the TCL.

Given the overlap of Target Capabilities, funded projects may enhance or impact more than one Target Capability. For example, hiring an intelligence analyst in a fusion center to monitor, link and report on suspicious activity would impact both the Intelligence Analysis and Production Target Capability and Information Gathering and Recognition of Indicators and Warnings, etc. While the results of the analysis of dollars to capabilities herein are directionally accurate, this challenge can be reduced in the future by enhancing current data collection tools so that they acquire more precise and explicit information on the alignment between projects and their expected impact on capabilities.

Finally, in certain cases, current data collection tools used to track UASI grant expenditures do not incorporate specific outcome measures for investments. Thus, proxy evaluations of outcome and impact were developed through targeted interviews with local subject matter experts as a way to capture anecdotally both the results of a selection of investments made through the UASI program, as well as the potential ramifications of reduced or eliminated funds in the future.

Section 3

Bay Area Risk Profile

This section outlines the Bay Area’s risk environment and the capabilities needed to effectively mitigate that risk. It describes both the terrorism threats and natural hazards that pose the greatest risk to the region, and the Target Capabilities across mission areas that must be in place in the Bay Area to address those threats and hazards.

3.1 Risk Overview

Managing risk is at the core of the Bay Area’s homeland security efforts. Through the UASI grant program, the Bay Area has developed a sophisticated risk management program involving people, processes, and analytic software systems. As part of its risk management efforts, the region conducts an annual risk assessment to outline the region’s current threats and hazards and the capabilities in place to address them.⁹

Federal law defines a terrorism incident as the “...unlawful use of force and violence against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof, in furtherance of political or social objectives.”¹⁰ In addition, natural hazards – such as floods, earthquakes, windstorms, tsunamis, coastal storms, landslides, and wildfires that strike populated areas – can cause an incident when those hazards harm people, property, or the environment.

Risk, then, is the expected negative impact of an adverse incident (whether the result of terrorism or a natural hazard) on an asset, considering both its likelihood and the magnitude of its impact. Risk can be expressed as a number or value in order to make comparisons, and is calculated as a function of threat, vulnerability, and consequence. **Risk = Threat x Vulnerability x Consequence.**

3.2 Threats and Hazards

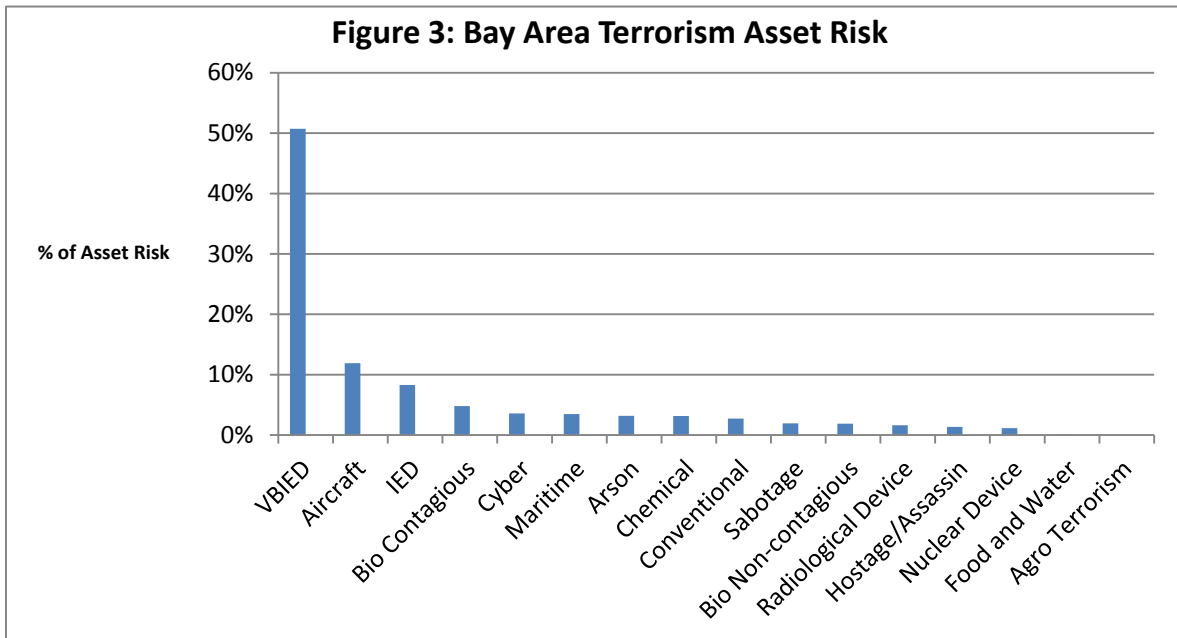
The Bay Area has continuously been cited as one of the highest risk urban areas in the nation. This is evidenced by its classification as a “tier one” urban area under the UASI program for several years, along with other regions, including New York City, Chicago, Washington, DC, Houston, and Los Angeles. In calendar year 2011, as part of the FY 2012 DHS led UASI risk assessment process, the Bay Area’s risk ranking actually rose relative to other regions in the country.

⁹ This assessment is in addition to and supports the DHS annual assessment conducted for purposes of allocating UASI funds across urban areas nationally.

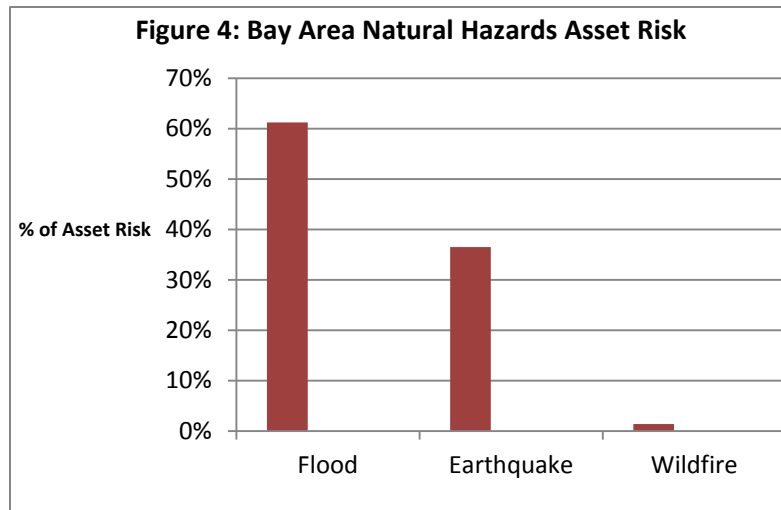
¹⁰ 28 C.F.R. Section 0.85

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The terrorism scenario that poses the greatest risk to the Bay Area’s critical infrastructure and key resources (CIKR) is the vehicle-borne improvised explosive device (VBIED), e.g., a truck bomb. VBIED attacks are relatively easy to carry out as evidenced by the scenario’s common usage across the world. CIKR in the region are also vulnerable to such an attack, with potentially significant consequences involving loss of life and economic damages. An attack using a conventional improvised explosive device (IED) ranks third in total risk. This results in over half of the Bay Area’s terrorism risk emanating from the possibility of terrorists using explosives. The use of an aircraft as a weapon (primarily a general aviation aircraft) ranks third among the sixteen terrorism scenarios that were analyzed. Figure 3 ranks the terrorism scenarios that pose the greatest risk to the region’s CIKR.



In addition to terrorism scenarios, the Bay Area also faces significant risk from natural hazards, in particular floods and earthquakes. As outlined in Figure 4, floods pose the greatest risk to the Bay Area’s CIKR based upon their frequency, the region’s vulnerability to such a hazard, and the consequences of major flooding in terms of lives and property. The Bay Area also rests upon one of the longest and most active earthquake fault systems in the world. This system includes the San



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Andreas Fault, the Hayward Fault and the Calaveras Fault. The U.S. Geological Survey estimates a 63% probability of a magnitude 6.7 or greater quake striking the Bay Area within the next 30 years.

3.3 Risk Relevant Capabilities

Consistent with federal guidance and frameworks, the Bay Area identified capabilities from the TCL that are the most “risk relevant” i.e., a priority for the region in order to prevent, protect against, respond to, and recover from terrorism scenarios that represent the greatest risk to the region. While terrorism is the primary driver for evaluating and ranking capabilities based on risk, virtually every capability ranked accordingly has a dual use purpose – the capability can also be used to address natural hazards, or crime or man-made accidents.

After classifying capabilities according to their risk relevance a capabilities assessment and gap analysis were conducted. The Target Capabilities were then plotted by risk relevance and capability gap depending on each capabilities risk relevance and the size of the gap in the capability. The Target Capabilities with the largest capability gap and highest risk relevance were ranked as a priority. The top 15 capabilities listed in priority order are in Table 2 below.

Table 2: Bay Area Priority Target Capabilities

Rank	
1	Risk Management
2	Counter-Terror Investigation and Law Enforcement
3	Critical Infrastructure Protection
4	Information Gathering and Recognition of Indicators and Warnings
5	Planning
6	Emergency Public Safety and Security Response
7	On-Site Incident Management
8	Responder Safety and Health
9	Communications
10	Intelligence Analysis and Production
11	Intelligence and Information Sharing and Dissemination
12	Emergency Operations Center (EOC) Management
13	Fatality Management
14	Medical Surge
15	Emergency Public Information and Warning

In addition to these fifteen local priority capabilities, the Bay Area has identified seven additional capabilities that are a national priority. These seven national priority capabilities are among those that DHS has determined are critical to implementing the eight National Homeland Security Priorities. While there are other national priority capabilities beyond the seven, those other national priority capabilities are accounted for within the 15 local priority capabilities, e.g., Communications. The additional seven

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capabilities are ranked in priority order based on their risk relevance and capability gaps within the Bay Area:

Table 3: National Priority Target Capabilities

Rank	
1	Chemical Biological Radiological Nuclear Explosives (CBRNE) Detection
2	Explosive Device Response Operations
3	Weapons of Mass Destruction (WMD) Hazardous Materials (HazMat) Response and Decontamination
4	Community Preparedness and Participation
5	Citizen Evacuation and Shelter In-Place
6	Mass Care
7	Mass Prophylaxis

These 22 capabilities in total represent the Target Capabilities most needed to address scenarios posing a significant risk to the Bay Area by implementing both the Bay Area’s and the nation’s homeland security priorities in the region. These 22 capabilities are mapped across the four applicable mission areas in Figure 5 below (none of the priority capabilities fall under the recovery mission area).

Figure 5: Priority Capabilities by Mission Area

Response	Common	Prevention	Protection
Emergency Public Safety and Security Response	Communications	Counter Terrorism and Law Enforcement	Critical Infrastructure Protection
On-Site Incident Management	Risk Management	Information Gathering and Recognition of Indicators and Warnings	
Responder Safety and Health	Planning	Intelligence Analysis and Production	
Emergency Operations Center Management	Intelligence and Information Sharing and Dissemination	CBRNE Detection	
Fatality Management	Community Preparedness and Participation		
Medical Surge			
Emergency Public Information and Warning			
Explosive Device Response Operations			
WMD/HazMat Response and Decontamination			
Citizen Evacuation and Shelter In-Place			
Mass Care			
Mass Prophylaxis			

Section 4

Bay Area Allocation of Funding

This section outlines how the Bay Area has spent UASI funding across its regional homeland security goals, National Priorities, Target Capabilities, and homeland security mission areas in order to determine if those UASI funds were spent in the appropriate areas based on risk and capability needs. While all capabilities are examined, the emphasis is on those 22 capabilities deemed a priority for the region.

4.1 Mapping Priority Capabilities to Goals

Pursuant to DHS guidance and requirements, the region has developed a homeland security strategy, which has gone through several iterations over the years. Goals and objectives from the *Bay Area Homeland Security Strategy* (“*Strategy*”) have and will continue to evolve over time as the region completes various implementation steps and adjusts to federal guidance and requirements. However, at a high level, the overarching priorities for the region have remained relatively stable.

Each of the Bay Area’s goals in the *Strategy* aligns whenever possible with a national or State of California homeland security priority and each objective with a capability from the TCL.¹¹ The purpose of aligning each objective to a Target Capability is to ensure the *Strategy* drives investments centered on enhancing specifically defined capabilities needed to better secure and protect the Bay Area from acts of terrorism and other major hazards. A complete breakout of Bay Area goals, objectives and Target Capabilities is set forth in Appendix C.

In order to facilitate meta-analysis for this report, all strategic goals were aligned with the National Priorities and the 22 priority Target Capabilities in Table 4 on the following page. Table 4 from left to right lists the National Homeland Security Priorities and then maps the goals from the *Strategy* to those National Priorities, and then lists the 22 associated priority Target Capabilities linked to achieving each of the National Priorities and the Bay Area goals. Some capabilities, such as Planning, are accounted for among more than one National Priority and/or Bay Area goal. Each Target Capability that is considered a priority by the Bay Area *but not* by DHS is in italics (there are five in total).

Finally, the Bay Area recovery goal has no corresponding priority capabilities due to the fact that no recovery capabilities have been determined by the federal government or the Bay Area to be a priority at this time. However, this can and may change over time as the recovery mission area takes on greater importance at all levels of government.

¹¹ The *Bay Area Homeland Security Strategy* links to 35 out of 37 of the Target Capabilities. The *Strategy* does not link to either Animal Disease Emergency Support or Food and Agriculture Safety and Defense as the authority and responsibility to execute each of those capabilities rests with either the federal or state government.

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Table 4: National Priorities Mapped to Bay Area Goals

National Priority	Bay Area Homeland Security Strategy Goal	Associated National and Regional Priority Target Capabilities
Expand Regional Collaboration	Goal 1: Develop a Regional Risk Management and Planning Program	Planning <i>Risk Management</i>
	Goal 8: Enhance Regional Homeland Security Exercise, Evaluation and Training Programs	Planning ¹² Multiple other priority capabilities
Implement the National Infrastructure Protection Plan (NIPP)	Goal 2: Enhance Information Analysis and Infrastructure Protection	Intelligence/Information Sharing and Dissemination Counter-Terror Investigations and Law Enforcement
Strengthen Information Sharing and Collaboration Capabilities		Critical Infrastructure Protection <i>Information Gathering and Recognition of Indicators and Warnings</i> <i>Intelligence Analysis and Production</i>
Strengthen Interoperable and Operable Communications Capabilities		Communications
Strengthen CBRNE Detection, Response, and Decontamination Capabilities	Goal 4: Strengthen CBRNE Detection, Response, and Decontamination Capabilities	CBRNE Detection Explosive Device Response Operations WMD/Hazardous Materials Response and Decontamination
Implement the National Incident Management System (NIMS) and National Response Framework (NRF)		Emergency Public Safety and Security Response On-site Incident Management <i>Responder Safety and Health</i>
Strengthen Medical Surge and Mass Prophylaxis Capabilities	Goal 5: Enhance Medical, Public Health and Mass Care Preparedness	Medical Surge Mass Prophylaxis Mass Care <i>Fatality Management</i>
Strengthen Planning and Citizen Preparedness Capabilities	Goal 6: Strengthen Emergency Planning and Citizen Preparedness	Planning EOC Management Emergency Public Information and Warning Citizen Evacuation and Shelter-in-Place Community Preparedness and Participation
	Goal 7: Enhance Recovery Capabilities	None

¹² The Bay Area’s regional training and exercise program tests numerous capabilities across the full spectrum of homeland security mission areas. However, for purposes of this table and analysis herein, the only Target Capability listed is Planning, which covers the cost of the personnel and their time necessary to manage and implement the regional training and exercise program. All other capabilities impacted by training and exercises are accounted for among the other goals.

4.2 Funding by Target Capability

The data shows that the Bay Area is targeting UASI funds to enhance and sustain the 22 priority capabilities as determined by regularly conducted risk and capabilities assessments. A breakdown of funding among all Target Capabilities shows that from 2009 through 2011, of the approximately \$52 million spent, \$45 million, or 85.6% of all funding, went to the region's 22 priority capabilities. The remaining 11%, or \$5.2 million, was spent on other capabilities, with 3.4% or \$1.8 million spent on management and administration of the grant. Figure 6 provides this information in graphic form.

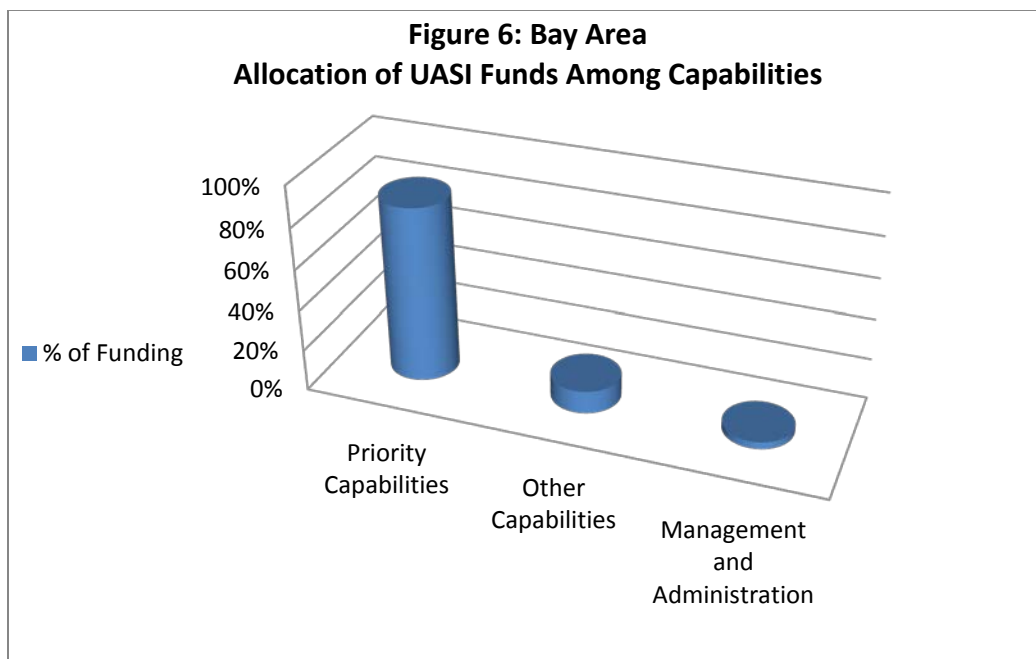


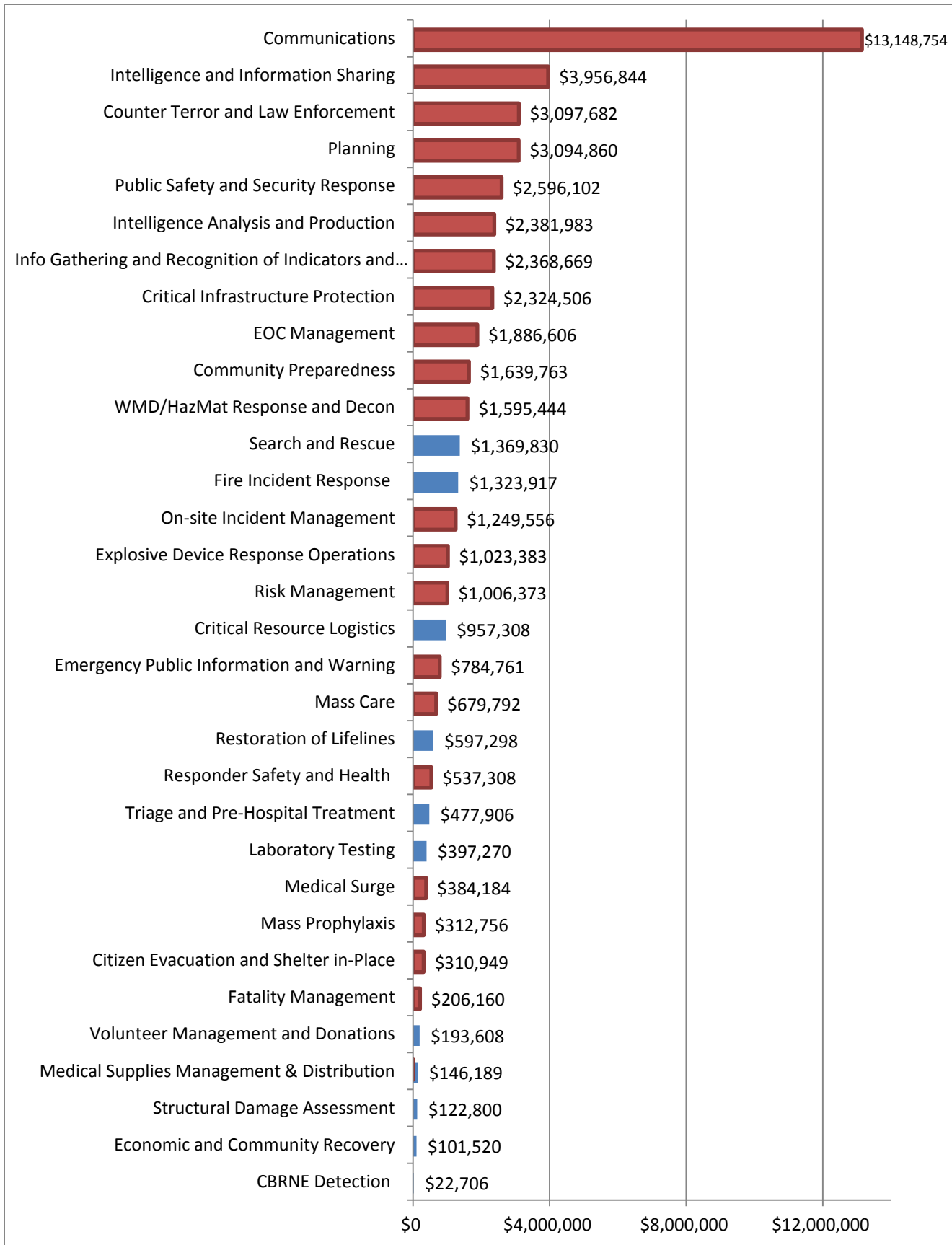
Figure 7 on the following page breaks out \$50.2 million (excluding the \$1.8 million for management and administration) in funding per Target Capability. Each of the 22 priority capabilities in Figure 7 is **highlighted in red** with all other funded capabilities listed in blue. In all, 32 capabilities received some level of funding with five Target Capabilities receiving no UASI funding under the covered time frame. These five are:

- Animal Disease Emergency Support¹³
- Environmental Health
- Isolation and Quarantine
- Food and Agriculture Safety and Defense
- Epidemiological Surveillance and Investigation

¹³ The lack of funding for Animal Disease Emergency Support is not a concern because the responsibility to execute that capability resides largely with the State of California and the federal government. As a result, the Bay Area has recently removed the capability from the *Bay Area Homeland Security Strategy*.

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Figure 7: Bay Area UASI Funding by Target Capability



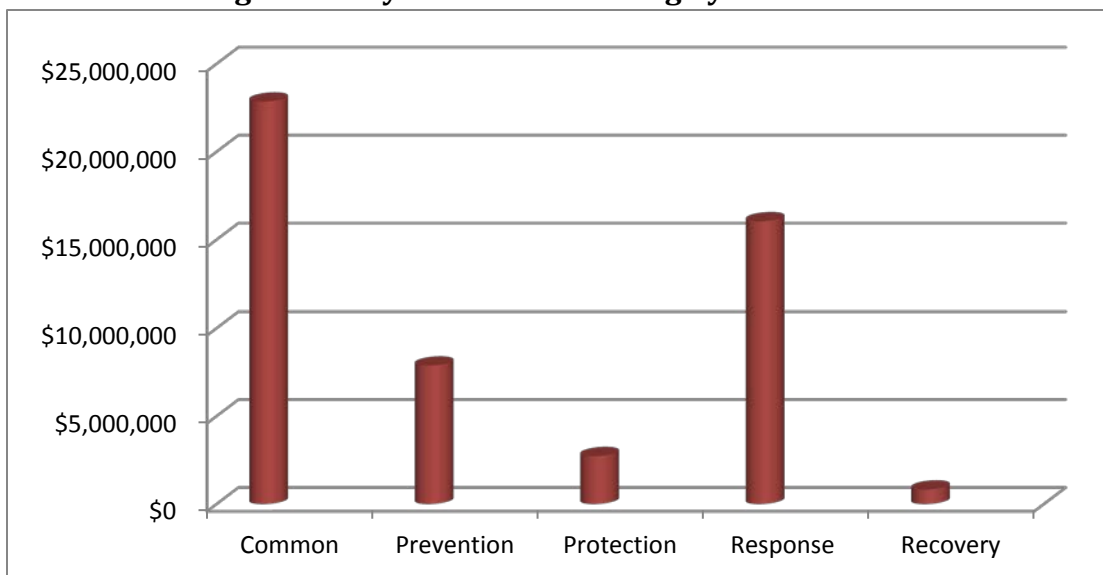
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The Bay Area did not allocate UASI funding to each capability solely on the basis of which capability was ranked highest in priority alone. Costs of capabilities also helped drive how much UASI funding was allocated to each capability. The “cost of a capability” is the amount of money and other resources needed to build or sustain that capability. This varies significantly among the Target Capabilities and explains why the largest increases in ability (discussed in more detail in section 5) were not always synonymous with the largest amounts of funding allocated toward a capability.

4.3 Funding by Homeland Security Mission Area

The Bay Area is allocating its funding across the full spectrum of homeland security mission areas as outlined in Figure 8. Chief among these mission areas is the common mission area. Building common mission area Target Capabilities supports the full homeland security enterprise from prevention through recovery. However, more or less funding assigned to a given mission area does not necessarily determine a mission area’s importance, as the mission areas are not equal in terms of the number of capabilities assigned to them or in the costs associated with building or sustaining capabilities (discussed in more detail in section 5). For example, the common mission area’s five capabilities received the most funding based in large part on the fact that the Communications Target Capability is grouped under that mission area, along with Intelligence and Information Sharing and Dissemination (the two capabilities that received the most funding under the covered time period).

Figure 8: Bay Area UASI Funding by Mission Area



While the response mission area received the second largest amount of total funding, the prevention mission area capabilities received a larger average amount of funding per capability (\$1,967,760) versus those capabilities in the response mission area (\$891,203 average per response capability). The region funded a total of four prevention capabilities and 18 response capabilities.

Section 5

Capability Improvements

This section reviews how the \$50.2 million of UASI funds spent on capabilities impacted them as determined by two capabilities assessments. These impacts include increases, sustainment, or decreases in capability levels; increases, sustainment, or decreases in capabilities by mission areas and regional homeland security goals; and finally, the dual use nature of any capability increases, e.g., capabilities that can be used to manage terrorism and natural hazards.

5.1 Capability Assessments

In 2009 and in 2011, the Bay Area conducted a regional capability self-assessment based on the TCL. For both the 2009 and 2011 assessments, capability levels were organized into four quartiles that determined level of ability: Low, Medium-Low, Medium-High and High as outlined in Table 5 below.

Table 5: Capability Assessment Levels of Ability

Low	<p>No needs are satisfied for this activity. This may be because it is not critical to the region, or because insurmountable barriers exist. The activity cannot be performed successfully.</p> <p>Needs within this activity have been recognized and initial efforts have been made to satisfy some of those needs for this activity, but very few if any have been met.</p> <p>Few needs are satisfied for this activity, but substantial barriers remain and it is not yet clear how they will be overcome. This activity is unlikely to be performed successfully.</p>
Medium Low	<p>Needs within this activity have been recognized and initial efforts have been made to satisfy some measures/metrics at the specified level for this activity, but very few if any have been met.</p> <p>A few needs are satisfied; for this activity, but substantial barriers remain and it is not yet clear how they will be overcome. This activity is unlikely to be performed successfully.</p>
Medium High	<p>Though much effort remains to satisfy the needs for this activity, a plan is in place to satisfy the rest. Remaining issues are being identified.</p> <p>Though effort remains, a plan is in place to satisfy the rest. Remaining issues have been identified and are being addressed. The activity may be performed successfully if required.</p>
High	<p>Most/Almost all needs are satisfied for this activity, and though moderate effort remains and a few issues are outstanding, a plan is in place and being followed to address them. Progress is being made toward satisfying the others with no issues outstanding.</p> <p>It is likely, though not assured, that the activity could be performed adequately if required. All needs are satisfied at the specified level for this activity. Ideally, activity performance is validated via exercises or experience.</p>

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In-between the two assessments, the region spent approximately \$50.2 million of UASI funds across 32 of the Target Capabilities. The Bay Area saw the \$50.2 million contribute to improvement or sustainment in capability levels among *all* of the 22 priority capabilities and eight other funded capabilities as outlined in the capability assessment comparison chart in Table 6 below.

Table 6: Bay Area UASI 2009-2011 Target Capability Comparison

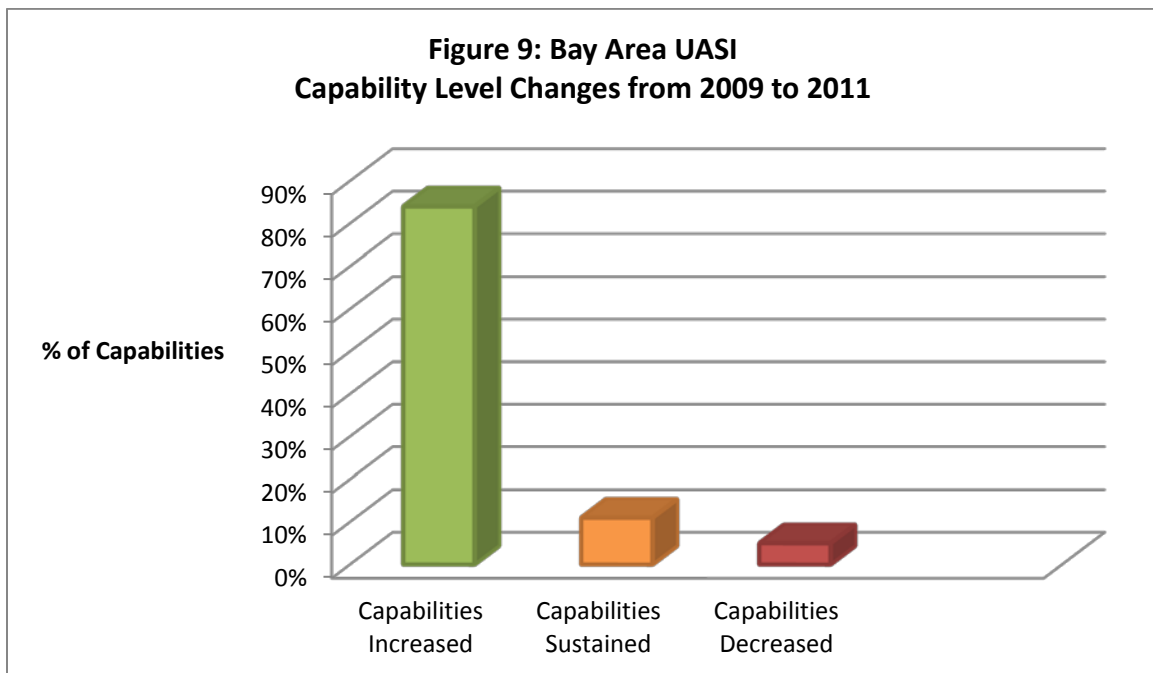
Priority	Target Capability	2009 Level of Ability	UASI Funding	2011 Level of Ability	Capability Trend	2011 Gap Analysis
1	Risk Management	Low	2.5%	Medium Low	Quartile Change	Needs Extra Attention
2	Counter-Terror Investigation and Law Enforcement	Medium Low	6.2%	Medium Low	Sustained	Needs Extra Attention
3	Critical Infrastructure Protection	Low	4.6%	Medium Low	Quartile Change	Needs Attention
4	Information Gathering and Recognition of Indicators/Warnings	Medium Low	4.7%	Medium Low	Sustained	Needs Extra Attention
5	Planning	Medium Low	6.2%	Medium Low	Improved	Needs Extra Attention
6	Emergency Public Safety and Security Response	Medium Low	5.2%	Medium Low	Improved	Needs Attention
7	On-Site Incident Management	Medium Low	2.5%	Medium Low	Improved	Needs Attention
8	Responder Safety and Health	Low	1.1%	Medium Low	Quartile Change	Needs Attention
9	Communications	Medium Low	26.1%	Medium Low	Improved	Needs Attention
10	Intelligence Analysis and Production	High	4.7%	High	Sustained	Adequate
11	Intelligence and Information Sharing and Dissemination	Medium High	7.9%	Medium High	Improved	Needs Attention
12	Emergency Operations Center Management	Medium Low	3.8%	Medium High	Quartile Change	Needs Attention
13	Fatality Management	Low	0.4%	Medium Low	Quartile Change	Needs Attention
14	Medical Surge	Low	0.8%	Medium Low	Quartile Change	Needs Attention
15	Emergency Public Information and Warning	Low	1.6%	Medium Low	Quartile Change	Needs Attention
16	CBRNE Detection	Medium Low	0.1%	Medium Low	Improved	Needs Attention
17	Emergency Triage and Pre-Hospital Treatment	Medium High	1%	Medium High	Improved	Adequate
18	Explosive Device Response Operations	Medium High	2%	High	Quartile Change	Adequate
19	WMD/HazMat Response and Decontamination	Medium Low	3.2%	Medium High	Quartile Change	Adequate
20	Fire Incident Response Support	High	2.6%	High	Improved	Adequate
21	Critical Resource Logistics and Distribution	Low	1.9%	Medium low	Quartile Change	Needs Attention
22	Community Preparedness and Participation	Low	3.3%	Medium Low	Quartile Change	Needs Attention
23	Citizen Evacuation and Shelter In-Place	Low	0.6%	Low	Improved	Needs Attention
24	Economic and Community Recovery	Low	0.2%	Low	Sustained	Needs Attention
25	Volunteer Management and Donations	Low	0.4%	Low	Improved	Needs Attention
26	Restoration of Lifelines	Low	1.2%	Low	Improved	Needs Attention
27	Structural Damage Assessment	Medium High	0.2%	Medium low	Decreased	Needs Attention
28	Mass Care	Medium Low	1.4%	Medium Low	Improved	Adequate
29	Search and Rescue (Land-Based)	Medium Low	2.6%	Medium High	Quartile Change	Adequate
30	Medical Supplies Management and Distribution	Medium Low	0.3%	Medium High	Quartile Change	Adequate
31	Animal Disease Emergency Support	Medium Low	N/A	Low	Decreased	Adequate
32	Environmental Health	Medium Low	N/A	Medium Low	Improved	Adequate
33	Isolation and Quarantine	Low	N/A	Medium Low	Quartile Change	Adequate
34	Food and Agriculture Safety and Defense	Medium Low	N/A	Medium Low	Improved	Adequate
35	Laboratory Testing	Medium High	0.8%	Medium High	Improved	Adequate
36	Epidemiological Surveillance and Investigation	Medium High	N/A	Medium High	Improved	Adequate
37	Mass Prophylaxis	Medium Low	0.6%	High	Quartile Change	Adequate

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Table 6 above lists the percentage of UASI funding allocated to each capability in-between the two assessments and whether each capability improved within a quartile, improved enough to move to a higher quartile, was sustained, or decreased. Not applicable (N/A) is listed for the five capabilities that did not receive UASI funding during the covered time frame (but may have received funding from other sources). Finally, the last column to the right entitled “Gap Analysis” lists whether the capability level is sufficient based on the Bay Area’s risk profile. Three categories were used: “Adequate” meaning no additional capability is needed, “Needs Attention” meaning some additional capability is needed, and “Needs Extra Attention”, meaning the gap in capability level based on risk is significant.

The region saw 15 capabilities improve enough to move-up in their overall quartile ranking, e.g., from Medium-Low to Medium-High, with 16 capabilities improving within their quartile (but not enough to move-up in quartile ranking). These 31 capabilities that increased account for approximately 84% of all the Target Capabilities, as outlined in Figure 9 below. The remaining six Target Capabilities saw four capabilities or 11% sustain from one assessment to the next, with two capabilities or 5% decreasing. However, in no case did the level of ability drop among any of the 22 priority Target Capabilities in-between the two assessments.

From 2009 through 2011, the UASI program helped the Bay Area improve in 84% of all Target Capabilities



The degree to which capabilities improved was not based simply on a matter of the amount of funding provided towards a capability. For example, arguably the capability with highest “cost” to build and maintain is interoperable communications among first responders (the Communications Target Capability), due to the type and amount of equipment involved. As

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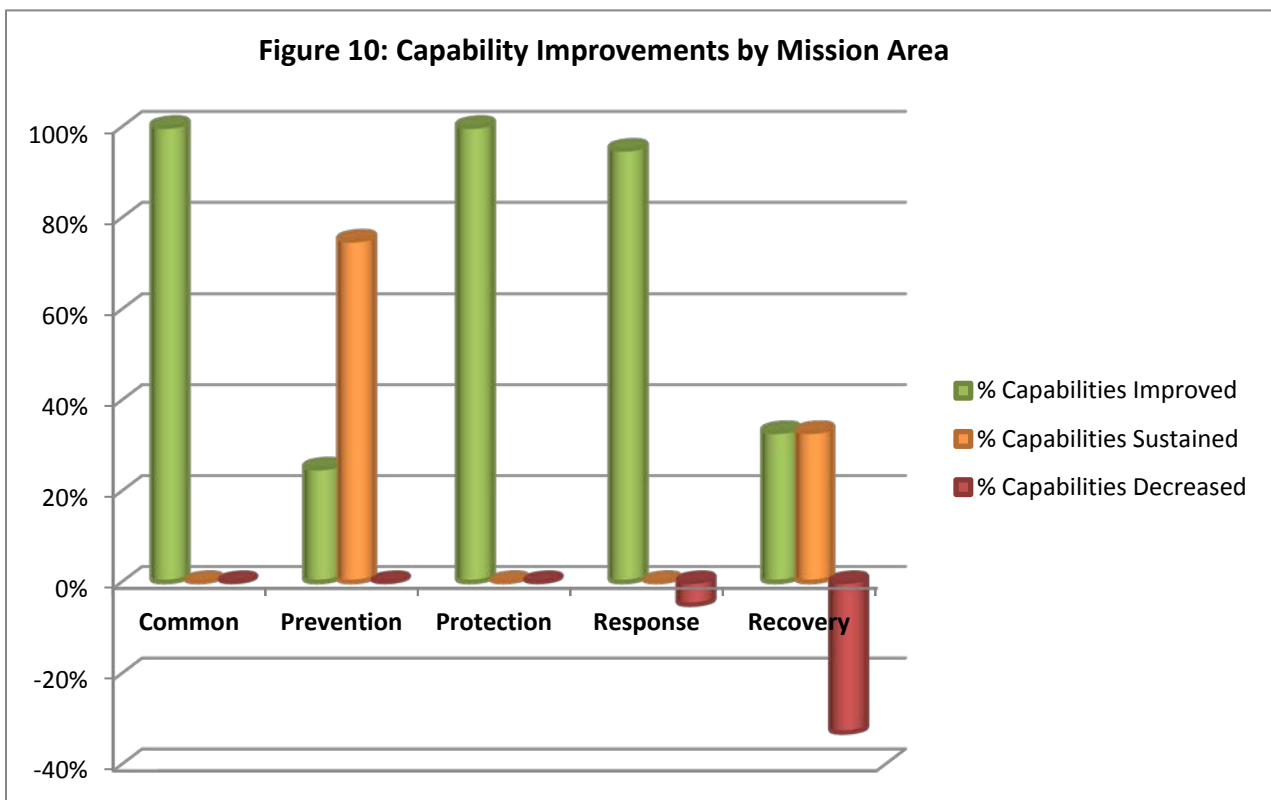
a result, while just over 25% of UASI funding was invested in Communications (the 9th ranked capability), and improvements in overall capability were present, there was no overall positive change in quartile ranking for Communications. In this case, Communications stayed at “Medium-Low” in both assessments with a gap indicating “Needs Attention.” Compare this to Critical Infrastructure Protection, the number 3 ranked capability, which received a small fraction of funding relative to Communications (6% in-between assessments), but which nonetheless moved up a quartile from “Low” in 2009 to “-Medium-Low” in 2011. The region also closed capability gaps in Critical Infrastructure Protection relative to risk by moving from “Needs Extra Attention” to “Needs Attention.”

In addition to the cost of raising a capability’s level, the law of diminishing returns is a factor in how funding is allocated and its impact on capability improvements. For example, when capabilities attain the “High” level, no additional funds can move the Target Capability to a higher quartile, even if capability levels do improve. And in certain cases, depending on the capability’s priority ranking, a “Medium-High” level of ability may be sufficient based on the region’s risk profile, as is the case with the Bay Area and the WMD/HazMat Response and Decontamination Target Capability.

Finally, another important factor is non-UASI funding. While the UASI program is a vital resource to assist the Bay Area in building regional capabilities, for several capabilities it is but one source and by no means the largest. For example, federal grants, particularly those from the U.S. Department of Health and Human Services (HHS), for medical and health capabilities, e.g., Isolation and Quarantine and Epidemiological Surveillance and Investigation, contribute significantly to capability enhancements in those areas.

5.2 Capabilities by Mission Area

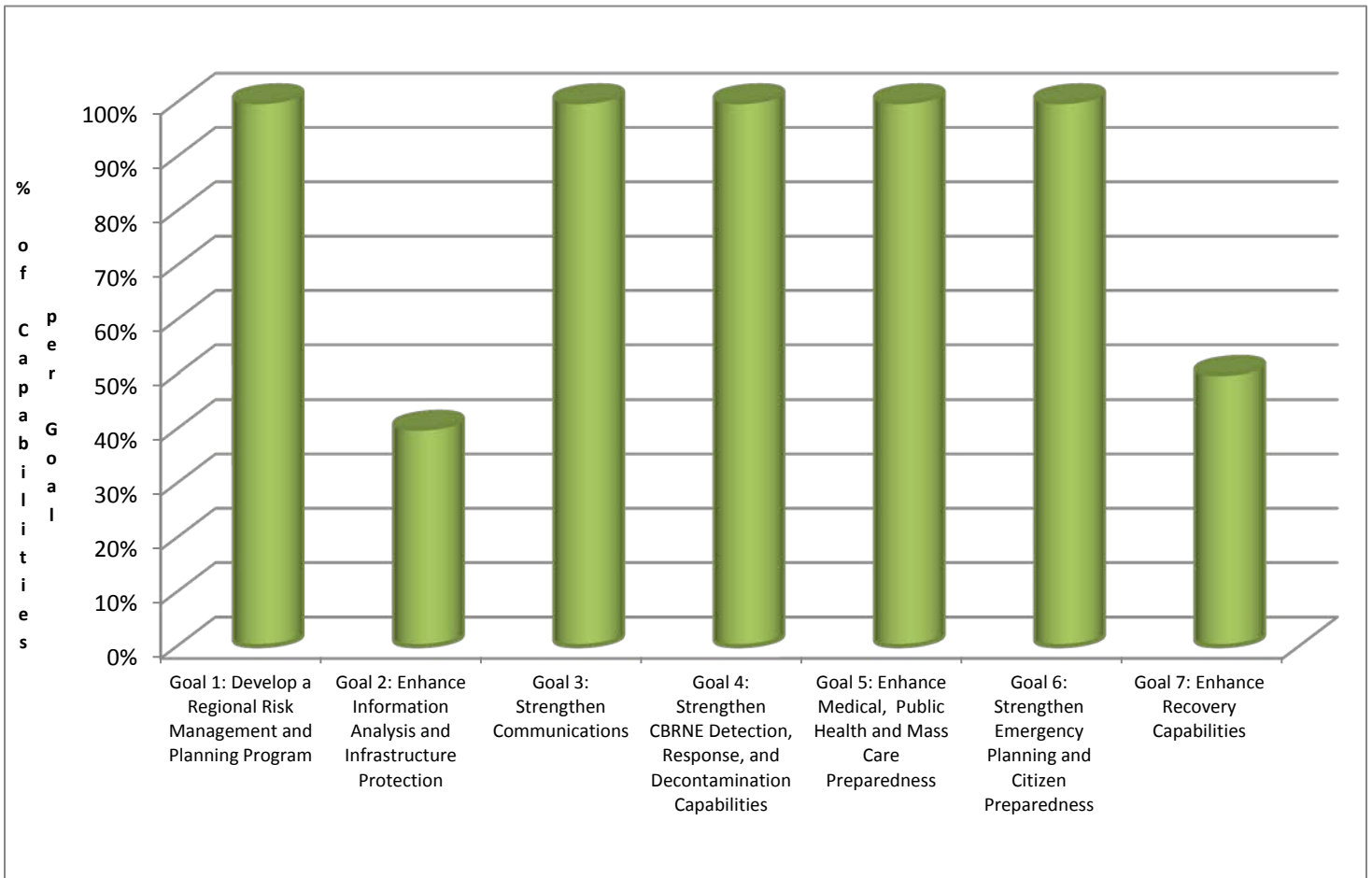
As noted previously, the Bay Area saw positive trends or sustainment in all capabilities with two exceptions. Figure 10 below summarizes this data across all four mission areas plus the common mission area. In both the common and protection mission areas, the Bay Area saw improvement in 100% of the capabilities in each mission area. The response mission area saw improvement in 95% of its capabilities with a decrease in 5% or one capability. While the prevention mission area saw improvement in only 25% of its applicable capabilities, the remaining 75% of capabilities were sustained. Finally, the recovery mission area was split among the three capabilities in that mission area with 33% of all capabilities increasing, decreasing, and having no change.



5.3 Capabilities by Bay Area Homeland Security Goals

Finally, an analysis of capability improvements from 2009 to 2011 by *Bay Area Homeland Security Strategy* shows that with UASI funds, the Bay Area made improvements in or sustained capabilities across all of its homeland security goals. Figure 11 below shows that five out of the eight goals – 1, 3, 4, 5 and 6 – saw every capability (100%) linked to an objective under each goal increase in some capacity. Goals 2 and 7 each saw capability improvements, with three of the five applicable capabilities in goal 2 sustaining levels of ability, and two improving. Goal 7 saw one capability decrease, one sustain, and two improve. Since goal 8, training and exercises, covers all applicable capabilities, any improvements in capabilities enhanced as a result of goal 8 activities would be reflected in one of the other seven goals.

Figure 11: Capabilities Enhanced or Sustained by Bay Area Homeland Security Strategy Goal



5.4 Building Dual Use Capabilities

In funding its priority capabilities, the Bay Area has built dual use regional capabilities that can address both the terrorism and natural hazard scenarios that pose the greatest risk to the region. Building dual use capabilities is an efficient use of scarce resources. It allows the Bay Area to focus on those capabilities primarily designed to address terrorism scenarios while simultaneously enhancing the region’s ability to address hazards such as earthquakes, wildfires, floods and industrial accidents. This cost saving and efficient approach is fully endorsed by DHS. In Table 7, each of the 22 priority capabilities as identified by the Bay Area and DHS, along with ten other necessary capabilities, is mapped to the Bay Area’s highest-risk terrorism and natural hazard scenarios that each capability is essential for addressing. The 22 capabilities are in italics and highlighted in red.

Table 7: Dual Use Capabilities Mapped to High Risk Scenarios

Earthquake	Terrorists’ Use of Explosives	Contagious Biological	Floods	Wildfires
<i>Planning</i>	<i>Planning</i>	<i>Planning</i>	<i>Planning</i>	<i>Planning</i>
<i>Communications</i>	<i>Communications</i>	Laboratory Testing	<i>Communications</i>	<i>On-site Incident Management</i>
<i>Critical Infrastructure Protection</i>	<i>Emergency Public Safety and Security Response</i>	<i>Emergency Public Information and Warning</i>	<i>Community Preparedness and Participation</i>	<i>Mass Care</i>
<i>Intelligence/ Information Sharing and Dissemination</i>	<i>Intelligence/ Information Sharing and Dissemination</i>	<i>Intelligence/ Information Sharing and Dissemination</i>	<i>Intelligence/ Information Sharing and Dissemination</i>	<i>Intelligence/ Information Sharing and Dissemination</i>
<i>Risk Management</i>	<i>Risk Management</i>	<i>Emergency Public Safety and Security</i>	<i>Risk Management</i>	<i>Citizen Evacuation and Shelter-in Place</i>
<i>Community Preparedness and Participation</i>	<i>Critical Infrastructure Protection</i>	<i>WMD/HazMat Response and Decontamination</i>	Search and Rescue	Fire Incident Response Support
<i>EOC Management</i>	<i>Counter-Terror Investigations and Law Enforcement</i>	<i>Fatality Management</i>	Critical Resource Logistics and Distribution	Critical Resource Logistics and Distribution
Critical Resource Logistics and Distribution	<i>Explosive Device Response Operations</i>	<i>Intelligence Analysis and Production</i>	<i>Citizen Evacuation and Shelter-in-Place</i>	<i>Communications</i>
<i>Emergency Public Information and Warning</i>	<i>Information Gathering and Recognition of Indicators and Warning</i>	<i>Responder Safety and Health</i>	<i>Emergency Public Information and Warning</i>	<i>Community Preparedness and Participation</i>
Volunteer Management and Donations	<i>Intelligence Analysis and Production</i>	Epidemiological Surveillance and Investigation	<i>EOC Management</i>	<i>Risk Management</i>
Fire Incident Response Support	Search and Rescue	<i>Medical Surge</i>	<i>Fatality Management</i>	<i>Responder Safety and Health</i>
<i>Citizen Evacuation and Shelter-in-Place</i>	<i>EOC Management</i>	<i>Mass Prophylaxis</i>	Economic and Community Recovery	<i>EOC Management</i>
<i>Emergency Public Safety and Security</i>	<i>Fatality Management</i>	<i>Risk Management</i>	<i>Mass Care</i>	<i>Emergency Public Information and Warning</i>
<i>Fatality Management</i>	<i>Medical Surge</i>	<i>Citizen Evacuation and Shelter-in-Place</i>	<i>Critical Infrastructure Protection</i>	Critical Infrastructure Protection
<i>Medical Surge</i>	<i>Emergency Triage and Pre-Hospital Treatment</i>	<i>Medical Surge</i>		
<i>Mass Care</i>	<i>Responder Safety and Health</i>			
Search and Rescue	<i>CBRNE Detection</i>			
Restoration of Lifelines	<i>On-site Incident Management</i>			
Economic and Community Recovery				
Structural Damage Assessment				

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Among the 32 capabilities listed in Table 7, the Bay Area allocated approximately \$50.1 (or over 99% of all its funding spent) across 31 of those capabilities during the covered time period. The only listed capability not funded with UASI dollars was the Epidemiological Surveillance and Investigation Target Capability necessary for a contagious biological terrorist attack. This capability is among the medical and health capabilities and is therefore eligible for funding under other federal and state grant programs and local general funds.

Section 6

Capabilities in Action

This section examines the actual use of multiple UASI supported capabilities through real world incidents and several full scale exercises. The analysis is centered on four major areas: risk management and planning, intelligence and infrastructure protection, emergency operations, and emergency communications. Each of the sub-sections links to the National Priorities, Bay Area goals, and Target Capabilities that are examined in that sub-section and provides a summary of major UASI funded items.

6.1 Regional Collaboration through Risk Management and Planning

National Priority: *Expand Regional Collaboration*

Bay Area Goal: *Develop a Regional Risk Management and Planning Program*

Primary Target Capabilities: *Planning and Risk Management*

Regional collaboration goes to the core of the UASI program's purpose, which is to break down traditional barriers based on level of government, e.g., city versus county, and public safety discipline, e.g., law enforcement versus fire, in order to enhance regional capabilities to address those terrorism scenarios that pose the greatest risk to large urban areas. The Bay Area UASI has fully embraced this

model and allocated \$4.1 million from 2009 through 2011 to develop a sophisticated risk management program and regional collaboration system to coordinate and manage a region that is as large and diverse as several states.

Like every UASI region, the Bay Area has developed a DHS-mandated and approved regional homeland security strategy and planning structure designed around implementing National Homeland Security Priorities at the regional level. The strategy serves as a foundation upon which all other local homeland security efforts are built.

In addition to regional planning, the Bay Area has also developed a comprehensive regional training and exercise program. At the center of this program is the UASI funded full scale preparedness exercise entitled Urban Shield, which is a multi-day event involving dozens of local, state and

The Bay Area Homeland Security Strategy 2012 - 2014



November 2011

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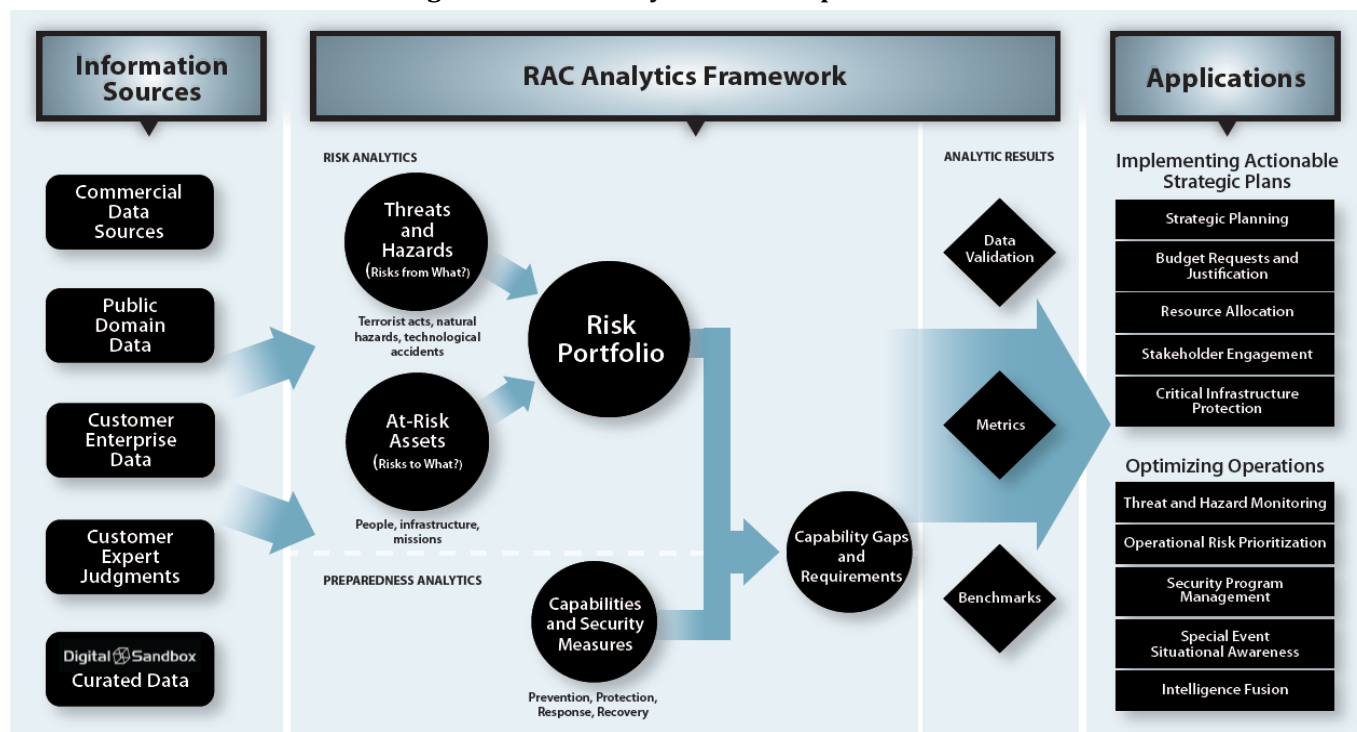
federal agencies and thousands of responders that tests a variety of Target Capabilities based upon terrorism and other scenarios.

Table 8: Major UASI Funded Risk Management and Planning Initiatives	
	Deliverable
Planning	Regional and local risk and capabilities assessments
	Updates to the <i>Bay Area Homeland Security Strategy</i>
	New homeland security strategy implementation process
	Recovery planner
	Implementation of EOPs, including recovery plan, disaster shelter plan
	New procedures to define EOC roles and responsibilities
	Updated mutual aid policies, protocols, and plans
	Enhanced plans for regional emergency coordination, medical surge, and mass prophylaxis
	Continuity of operations, strategic communications, catastrophic earthquake, and recovery plans
	Alameda County – Enhanced plans for HazMat Area, Oil Spill Response Plan
	Emergency response annexes
	Enhanced plans for NIMS, All-Hazard Strategic Plan, disaster response training plans for employees and citizen groups
	Regional homeland security program managers and planners
	Soft story housing safety assessment and implementation plan
	Regional assessment and strategic plan for emergency public information and warning
Training	Development and delivery of a regional training program
Exercises	Development and delivery of full scale regional exercises

6.1.1 Risk Management Tools and Procedures

To ensure its *Strategy* is based on reducing risk to the region through enhanced capabilities, in FY 2009, the Bay Area invested in the Risk Analysis Center (RAC) software platform. Today, with the UASI funded RAC, the Bay Area is engaging in sophisticated terrorism and natural hazards risk and capabilities assessments to help determine regional homeland security goals and objectives. Those goals and objectives then lead to UASI funded plans, organization, equipment, training, and exercises necessary to produce the outcomes that support enhancing preparedness and security in the Bay Area. The full scope of the RAC’s suite of capabilities is set out in Figure 12 below.

Figure 12: Risk Analysis Center Capabilities



The RAC leverages the above analytic framework within the Bay Area risk management program to continually refine the breadth and depth of data sources feeding the analytic framework. As a result, real-time results are produced that have broad application over several homeland security functions within the Bay Area. In addition to strategic planning and investing, example application use cases include:

- Critical Infrastructure protection – *Cataloging and vetting data, risk quantification.*
- Public Safety Operations – *Supporting fire planning, EOC integrations.*
- Intelligence Fusion – *Risk context applied to intelligence.*
- Special Event Security – *National special security events, common operating picture, situational awareness.*
- Catastrophic Emergency Planning – *Scenario modeling, mapping of vulnerable populations.*

The Bay Area’s use of the RAC helped lead to the system becoming the first in the nation non-federal system to be designated as Protected Critical Infrastructure Information (PCII) certified by DHS. This was a joint effort between the Bay Area, California Emergency Management Agency (CalEMA), and DHS, and took 14 months to achieve. This certification has allowed the private sector to share more information with the Bay Area’s public safety agencies, while maintaining the security of that information through the PCII designation. The enhanced information-sharing allows the region to better assess and evaluate risk to the region and its CIKR.

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6.1.2 Regional Governance and Management

The UASI mandated governance structure has transformed the way cities, counties and the private sector work together in the Bay Area to enhance regional preparedness and security. In the past, each level of government, and the public health and safety agencies within them, operated in a competitive environment when it came to acquiring funding to enhance capabilities. The UASI program has removed this competitive stove-piped approach with a required framework that saves time and money and leverages resources through regional cooperation and collaboration.

The Bay Area's governance structure is a groundbreaking regional approach that has been recognized across the country as a homeland security best practice.

Governed by a multi-year memorandum of understanding between the participants, the Bay Area UASI is managed through a three-tiered governance structure. This includes an Approval Authority that serves as a regional executive board for policy making, an Advisory Group made up of a wide variety of regional stakeholders that serves as a policy clearinghouse for the Approval Authority, and a Management Team made up of public safety and management professionals that oversees the grant and helps implement policy and programs. The Bay Area's governance structure is widely viewed as having an important, groundbreaking regional approach that has been recognized across the country as a homeland security "best practice."¹⁴

6.1.3 Regional Training and Exercise Program

The Bay Area's multi-year Homeland Security Exercise, Evaluation, and Training Program is designed to address regional goals, build towards and test against Target Capabilities within the *Bay Area Homeland Security Strategy*, and to improve the operational readiness of the homeland security system in the region across the full spectrum of prevention, protection, response and recovery.

The Alameda County Sheriff's Office (ACSO) is the Bay Area's managing agent for the area's regional training and exercise program and leads a multi-disciplinary staffing structure. The ACSO Regional Training Center (RTC) includes a full basic academy, a state-of-the-art firearms training facility, an advanced emergency vehicle operations facility, and multiple contemporary classrooms equipped with modern technology.

¹⁴ *Emergency Management Magazine*, Bay Area UASI's Governance Structure Aids Collaboration, Coordination in California, (April 30, 2010) accessed at <http://www.emergencymgmt.com/disaster/Bay-Area-UASIs-Governance.html>.

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Over the years, the Bay Area's regional training program has trained thousands of responders across a range of disciplines, including emergency management, emergency medical services, fire-fighting, law enforcement, and hazardous materials response, etc. This training is invaluable to building regional capacity to better protect the lives and property of all Bay Area residents from all hazards. The region has also developed a training and exercise website for all of its regional stakeholders. The site is fully functional and allows subject matter experts to submit training proposals, register students, and produce basic statistical reports.

The Bay Area UASI also manages the internationally-recognized, annual, and full-scale exercise, "Urban Shield." Urban Shield is a multi-day continuous exercise conducted throughout the Bay Area UASI region. Thousands of first responders are mobilized and deployed to dozens of different exercise scenarios hosted by various agencies. These scenarios address the core competencies and response capabilities of law enforcement tactical teams, emergency medical services providers, hazardous materials/urban search and rescue teams, communications, explosive ordnance disposal teams, as well as intelligence and critical infrastructure protection, among others.



6.2 Intelligence and Critical Infrastructure Protection

National Priorities: *Strengthen Information Sharing and Collaboration Capabilities, and Implement the NIPP*

Bay Area Goal: *Enhance Information Analysis and Infrastructure Protection*

Primary Target Capabilities: *Intelligence and Information Sharing and Dissemination, Counter-Terror Investigations and Law Enforcement, Critical Infrastructure Protection, Information Gathering and Recognition of Indicators and Warnings, and Intelligence Analysis and Production*

The Bay Area spent just over \$10.1 million in UASI resources from 2009 through 2011 to support its mission to prevent and protect against terrorism and major crimes. A critical element of that effort is the Northern California Regional Intelligence Center (NCRIC). The NCRIC is the Bay Area’s nationally renowned "All Crimes Fusion Center", owned and operated by the local public safety agencies in the region. The NCRIC helps safeguard the community by disseminating intelligence and facilitating communications between federal, state, and local agencies and private sector partners to help them take action against terrorism, gangs, drug

trafficking organizations, and serial crimes. Today, the NCRIC includes 8,388 public and private sector members and reviewed 2,631 new applications for membership during local fiscal year 2011-12.

The NCRIC is the only fusion center in the nation to be under the unified command of a High Intensity Drug Trafficking Area’s (HIDTA) Executive Board. The NCRIC is co-located in the FBI Field Division’s main facility in San Francisco, along with the HIDTA Investigative Support Center and the FBI Joint Terrorism Task Force (JTTF). The NCRIC’s homeland security program consists of the Assessment and Monitoring Team, Vetting and Awareness Team, Critical Infrastructure Protection Team, and Outreach Programs for Terrorism Liaison Officers (TLOs) and the Private Sector. The HIDTA consists of a Management Initiative, an Investigative Support Center, a Training Initiative, and five Investigative Initiatives.

Table 9: Major UASI Funded Intelligence and Infrastructure Protection Initiatives

	Deliverable
Planning	Plans and protocols for regional information sharing concept of operations implementation
	COPLINK - Enhanced information sharing plans and policies and procedures between multiple UASI regions
	Public sector outreach plans
	Bay Area regional risk assessment
	Critical infrastructure assessments
	Updated NCRIC policies and procedures
	NCRIC, Terrorism Liaison Officers (TLOs)

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Organization	Multidisciplinary Terrorism Early Warning Groups (TEWGs)
	NCRIC intelligence analysts
	Automated field reporting - records management system
Equipment	COPLINK law enforcement information-sharing system
	Golden Gate Bridge security enhancements
	Terrorist and criminal surveillance, tracking, and telecom equipment
	Automated Regional Information Exchange System
	Water treatment devices and physical security devices
	Cyber security equipment
	Portable barricades
	Automated Critical Asset Management System (ACAMS)
Training	Terrorism analysis
	Suspicious activity reporting
	WMD threat and risk assessment
	TLO basic and advanced
	Physical security enhancements
	Prisoner radicalization
	Test and evaluate response to an active shooter scenario at the Pyramid Building
Exercises	Test and evaluate an active shooter scenario at the East Bay Municipal Utility District, City of Daly City Water Treatment Plant and the Rinconada Water Treatment Plant

6.2.1 NCRIC Return on Investment Analysis

While the NCRIC’s UASI and HIDTA funds are not comingled and are managed separately as a matter of fiscal and grants-management policy, the capabilities produced by the two sources of funds are fully integrated to help secure the region against major crimes and terrorism.

The NCRIC has been recognized as a national “best practice” for information sharing by the Director of National Intelligence

This unified approach is a model for effectiveness and efficiency of information-sharing, threat and vulnerability identification, and prevention initiatives. In fact, in 2012, the Director of National Intelligence said the NCRIC is a model fusion center for the nation.

In 2011, for every \$1 invested in law enforcement initiatives, the NCRIC/HIDTA generated an average return on investment (ROI) of \$986.58 in drug seizures and \$4.89 in cash and asset seizures, for a total ROI of \$991.48 for drugs and assets seized. Drug and asset seizures have increased by over \$2 billion since 2006, and the ROI of every HIDTA dollar expended has increased by \$688.08 since that year. This is reflected in Table 10 below.

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Table 10: NCRIC/HIDTA Supported Drug and Asset Seizures						
Year	2006	2007	2008	2009	2010	2011
Seized	\$662,427,559	\$513,214,272	\$1,156,045,674	\$1,766,521,094	\$1,097,661,392	\$2,723,564,842
ROI	\$303.40	\$262.49	\$570.89	\$684.04	\$421.44	\$991.48

The NCRIC’s support to homeland security and law enforcement efforts across the region spans multiple areas. For example, from 2010 to 2011, the NCRIC provided vulnerability assessments at 54 critical infrastructure and key resource sites, large special events, and specialized training events. In 2012, the NCRIC vulnerability assessment methodology and report template was adopted by Argonne National Laboratory as a model for fusion center assessments and for use as a training tool for fusion centers across the nation. The full scope of the NCRIC’s operational, preparedness, and analytical support from 2009 through 2011 is outlined in Figure 13 below.

Figure 13: NCRIC Support to Bay Area Preparedness and Security

NCRIC Products Delivered	Suspicious Activity Reports (SARs) Received	SARs Reported to FBI	Major Vulnerability Assessments
220 intelligence products	708 SARs	381 SARs	54 site assessments
Criminal Cases Supported	JTTF RFI Support	Electronic Surveillance Support	TLO Training
1,395 Cases	418 RFIs	155 electronic intercepts and 128 pen registers	109 courses and 4,319 students trained
Law Enforcement Training			
389 courses and 16,551 students trained			

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The collection and analysis of suspicious activity reports (SARs) that are later forwarded to the FBI/JTTF for investigation are particularly important. These SARs provide a sufficient basis for the FBI to make formal inquiries or open full field terrorism investigations. Without the NCRIC, many, and possibly most, of these SARs would never reach the FBI, resulting in a major intelligence and homeland security gap.

The SARs provided by the NCRIC are often the proverbial “dots” that need to be collected and then connected in order to prevent an attack from occurring. Sometimes the SAR may be non-criminal in nature, e.g., photographing security cameras at iconic buildings, while others may involve an independent crime intended to support terrorist operations, e.g., stealing law enforcement uniforms.

The collection and analysis of suspicious activity allows the region to determine if a potential terrorist plot or material support to terrorism is occurring before an actual attack occurs in the Bay Area or anywhere else in the United States. It is a vital terrorism prevention tool and the NCRIC is the FBI/JTTF’s single largest provider in the region of SARs that have a potential nexus to terrorism.

6.2.2 The Terrorism Liaison Officer Program

A key element of the Bay Area’s homeland security efforts is the region’s UASI funded Terrorism Liaison Officer (TLO) program. TLOs are trained public safety personnel whose purpose it is to improve information sharing among and between public safety agencies and their private sector

The Terrorism Liaison Officer program originated in California and is now used as a national model by DHS and other states and urban areas.

partners. TLOs achieve this by working with the NCRIC as a conduit for homeland security information sharing from the field to the fusion center for analysis, and from the fusion center to the field for action. This includes TLOs collecting suspicious activity reports for NCRIC analysis and subsequent follow-up by the region’s JTTF. By the end of calendar year 2011, there were 1,717 fully trained and certified TLOs operating in the Bay Area. The TLO program originated in California and is now used as a national model by DHS and other states and urban areas. On numerous occasions, TLOs have been instrumental in collecting and sharing information to deter potential acts of terrorism and violent crime.

In March 2010, a man was observed in an Oakland airport bathroom changing into a blue jump suit with yellow reflective stripes similar to those used by airline ramp agents. After passing through TSA screening, the man walked to the “employees only” airport operations section. He was later caught by TSA in an airport office behind a ticket counter trying to access a computer. The man was then arrested by the Alameda County Sheriff’s Office and booked at the county jail, where detailed maps of subways and transit schedules were discovered among the man’s personal property. The jail TLO then notified the NCRIC of the incident at the airport. This information was then provided to the FBI as a suspicious

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activity report. The man later admitted to being a member of the Hell's Angels outlaw motorcycle gang.

On November 5, 2011, the date of former transit police officer Johannes Mehserle's sentencing for shooting an unarmed man on a transit platform and associated protests in Oakland, the NCRIC issued an officer safety bulletin to TLOs and law enforcement. The bulletin was based on threats a man had made via Twitter against law enforcement officers in the Bay Area region. Angry over the two year sentence Mehserle had received, the man claimed "This is war" and said that he was armed and heading to Oakland where the Mehserle's sentence was handed down. The bulletin included a picture of the man, his registered vehicles and registered firearms. The individual was later contacted by police at the Oakland airport and prevented from committing any act of violence.

6.2.3 Supporting Terrorist Screening Operations

The Bay Area's intelligence programs directly support federal counter terrorism screening efforts. This was evidenced by a recent incident in which local law enforcement and the NCRIC supported the FBI led Terrorist

The Bay Area is directly supporting the federal government's efforts to screen and track known and suspected terrorists.

Screening Center (TSC). In June 2012, a San Jose police officer reported to the TSC an encounter with a "known or appropriately suspected terrorist" after the individual attempted to rent a car with fake identification.¹⁵ As a result of this encounter, the TSC notified all of California's fusion centers, including the NCRIC, via the new Law Enforcement Online notification and request for information process.

The NCRIC, in response to the TSC's request for information on the suspected terrorist, reviewed its databases and then forwarded all information it had on the individual to the TSC. The information supplied by the NCRIC was then vetted against all available TSC databases by its Terrorist Screening Operations Unit (TSOU). New information found by the TSOU was then forwarded for review to the FBI case agent responsible for the case surrounding the suspected terrorist. Within minutes of the case agent being notified, the agent called to inform the TSC that a Social Security number had been found that was being used by his subject that the agent was previously unaware of. In addition to the Social Security number, new information also included previously unrecorded system identification numbers for the subject from Colorado, Nevada, and Virginia.

By learning of the Social Security information, the FBI case agent now knows of alternate identifying information – name, Social Security number, etc. – that the suspected terrorist

¹⁵ The point of a TSC "hit" is to notify an FBI case agent of a law enforcement encounter with his/her subject, and to notify the law enforcement officer doing the encountering that the individual is potentially the subject of an ongoing terrorism investigation in order to relay pertinent information.

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was using. This enabled the agent to learn of any prior and unknown activity committed by the subject in that alternate name. The system identification numbers allowed the case agent to discover any previously unknown or unreported criminal activity undertaken by the suspected terrorist in other jurisdictions. The FBI agent acknowledged the benefits of the notification process and expressed his gratitude to all those involved.

6.2.4 Operational Support and Special Event Security

During violent demonstrations within the City of Oakland in 2012, the NCRIC, using CIKR information in the RAC, was able to provide known locations of CIKR to the Oakland Police Department. This allowed the Oakland incident commander to prioritize what assets to protect with the limited resources available. As a risk mitigation strategy, this limited the consequences of the riots in relation to damaging or disrupting CIKR.

The Bay Area has a considerable number of nationally and internationally recognized sporting and special events that include regularly occurring National Football League and Major League Baseball games. The most recent special event was the U.S. Open golf tournament held in San Francisco. The region used one of its three UASI supported Type I bomb squads (that of the San Francisco Police Department (SFPD)) to sweep the area and remain on standby in the event it was needed. As a risk mitigation tool, the NCRIC provided analytical support to the SFPD with integrated channel feeds that included news feeds, suspicious activity reports, camera feeds, license plate reader feeds, Law Enforcement On-line feeds, and on-site security feeds. Analytically triaged information was provided to the SFPD joint operations center, the command staff, and the NCRIC, which provided strategic and tactical support to mitigate risk to the event.

6.2.5 Fusion Center Assessments

In order to test and validate levels of capability, the NCRIC has undergone several assessments in recent years. Starting in October 2010, the federal Office of the Program Manager, Information Sharing Environment; the U.S. Department of Justice; and DHS provided resources and guidelines for a self-assessment. This was followed by an independent on-site validation review as part of an effort to assess capabilities at fusion centers across the country. The assessment focused on four Critical Operational Capabilities (COCs):

Federally led assessments consistently show the NCRIC to be among the highest performing fusion centers in the country.

- **COC 1** Ability to receive classified and unclassified information from federal partners
- **COC 2** Ability to assess local implications of threat information through the use of a formal risk assessment process
- **COC 3** Ability to further disseminate threat information to other state, local, tribal, territorial, and private sector entities within their jurisdiction

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- **COC 4** Ability to gather locally generated information, aggregate it, analyze it, and share it with federal partners as appropriate.

The results of the assessment are outlined in Figure 14 below.¹⁶

Figure 14: 2010 NCRIC Critical Operational Capabilities Scores

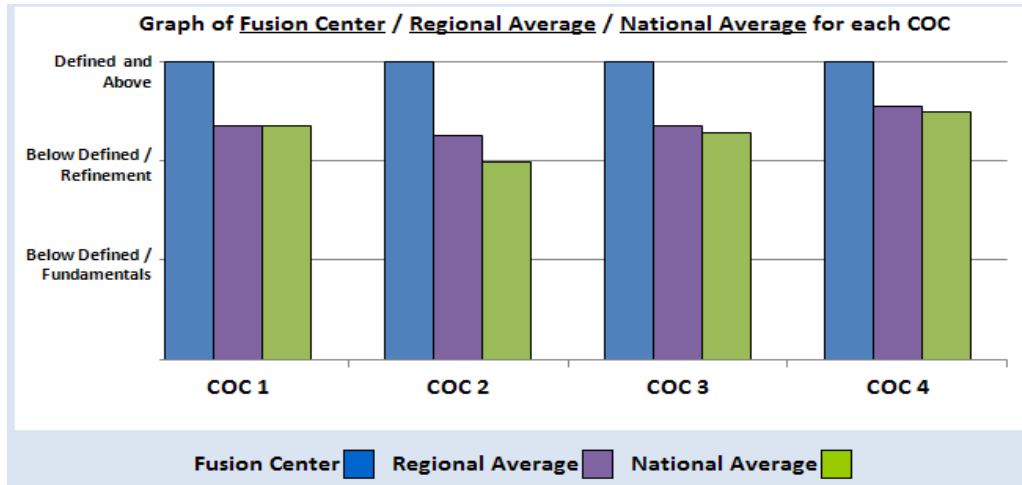


Figure 14 above shows that the NCRIC (listed as “Fusion Center”) performed at the highest level and well above the national and regional (Western U.S.) averages in all four COC categories. Its “Defined and Above” score means the NCRIC has “documented plans, policies, and standard operating procedures in place to execute the fundamentals of the COC.”¹⁷

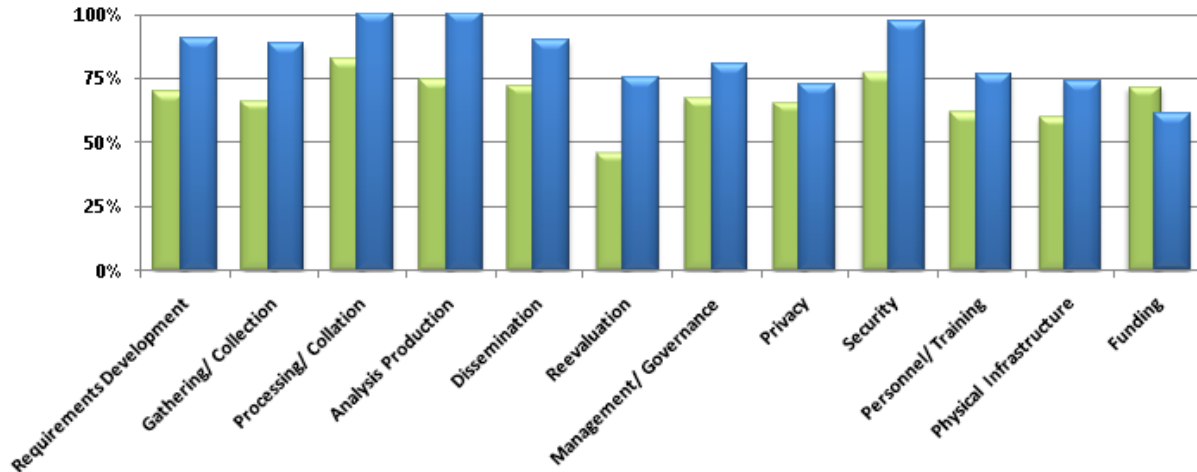
The 2010 assessment also broke out the four COCs into 12 subcategories in which the NCRIC outperformed its counterparts across the nation in 11 out of the 12 subcategories, as outlined in Figure 15 below. Only in the funding category did the NCRIC get outperformed due to the fact that the NCRIC relies heavily on federal grant funding to maintain its capabilities.

¹⁶ Northern California Regional Intelligence Center Baseline Capabilities Assessment, Prepared by the Office of the Program Manager, Information Sharing Environment (October 2010) at page 24.

¹⁷ Id at 23.

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Figure 15: 2010 NCRIC Critical Operational Capabilities - Subcategory Scores

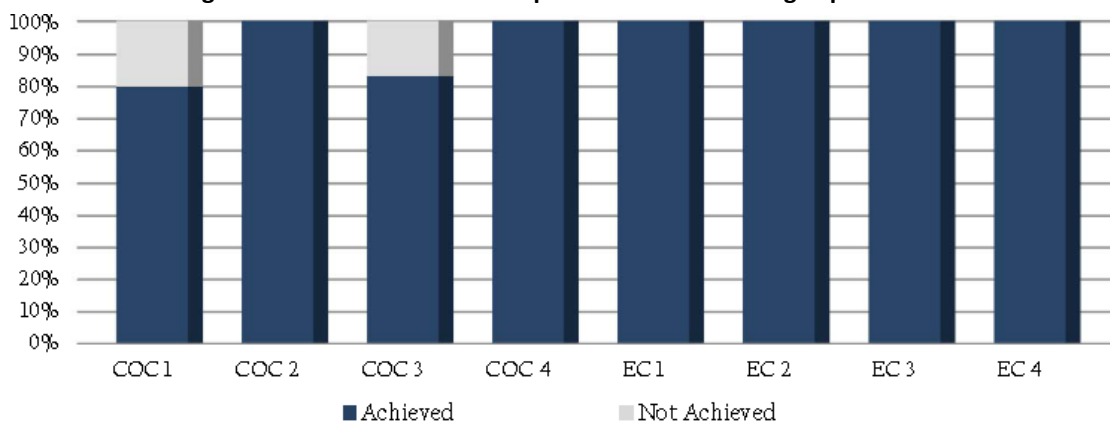


In 2011, the NCRIC underwent a follow-on self-assessment again led by federal partners. The 2011 assessment included the four COCs, as well as four new enabling capabilities (ECs):

- **EC 1: Privacy, Civil Rights, and Civil Liberties:** The ability and commitment to safeguard the privacy, civil rights, and civil liberties of all Americans.
- **EC 2: Sustainment:** The ability to establish and execute a sustainment strategy to ensure the long-term growth and maturity of the National Network.
- **EC 3: Communications:** The ability to develop and execute a communications and outreach plan
- **EC 4: Security:** The ability to protect the security of the fusion center’s facility, information, systems, and personnel

As in 2010, the NCRIC scored among the top fusion centers in the nation with an overall score of 92.7 out of a possible 100. This was nearly 16 points above the national average score of 76.8. The NCRIC achieved the highest possible score in all four ECs and two out of the four COCs as reflected in Figure 16 below.

Figure 16: 2011 NCRIC Critical Operational and Enabling Capabilities Scores



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6.2.6 Protecting Civil Liberties



Among the new ECs, the NCRIC was one of the first fusion centers in the nation to acquire a U.S. Department of Justice and DHS-approved privacy policy. Today, compared to all other Bay Area regional public safety programs, the NCRIC provides the greatest amount of regional privacy, civil rights, and civil liberties training to law enforcement personnel in the Bay Area.



As part of its privacy and civil liberties program, in 2011, the NCRIC led a series of meetings over a three day period in San Francisco, Oakland, and San Jose with local and federal law enforcement agencies and community organizations to discuss fostering trust among law enforcement and the communities they serve. The meetings led to the production of a guide for law enforcement agencies around the nation, "Building Communities of Trust – A Guidance for Community Leaders," produced by the Bureau of Justice Assistance, DHS,

and the International Association of Chiefs of Police.

6.2.7 Nationally Recognized Accomplishments

In addition to being recognized as a “best practice” by the Director of National intelligence, the NCRIC and its leadership have been formally recognized for their achievements at national level forums for all their accomplishments. In April 2012, two members of the NCRIC management team received the top fusion center awards from the Secretary of Homeland Security at the National Fusion Center Training Event. NCRIC Director Ronald E. Brooks received the highest individual State and Major Urban Area Fusion Center Award as the Representative of the Year (see picture above), and NCRIC Supervising Lead Analyst Jim Paterson was awarded the Michael Schooler Award for Excellence in the Field of Infrastructure Protection.



6.3 Regional Emergency Response

National Priorities: *Strengthen CBRNE Detection, Response, and Decontamination Capabilities, and Implement the National Incident Management System (NIMS) and National Response Framework (NRF)*

Bay Area Goal: *Strengthen CBRNE Detection, Response and Decontamination Capabilities*

Primary Target Capabilities: *Explosive Device Response Operations, CBRNE Detection, WMD/Hazardous Materials Response and Decontamination, Emergency Public Safety and Security Response, On-site Incident Management, Responder Safety and Health, and EOC Management*

The UASI program has been essential to enhancing incident management capabilities across the region involving a wide array of events, hazards and emergencies. Under the covered time period, the Bay Area allocated over \$16 million across all emergency response capabilities. The Bay Area’s investments in emergency response capabilities have reduced the potential consequences of a terrorist attack or natural disaster. These investments have resulted in more effective detection and response capabilities for CBRNE and other incidents, thereby reducing loss of life, property damage, and economic impacts. Capabilities have improved through enhanced planning, equipment, training, and exercises.

Table 11: Major UASI Funded Emergency Response Initiatives	
	Deliverable
Planning	Updates to HazMat response plans
	Critical resource inventory planning
	EOC readiness and response operations update
	Major fire rescue plans
	CBRNE assessments
	Bomb robots to support bomb squad operations
Equipment	Swift water rescue equipment
	Thermal imaging equipment
	Explosive, biological and chemical detection equipment
	Power tools for search and rescue
	Chemical leak control kits
	CBRNE personal protective equipment, including gloves, masks, boots, splash protection face masks, self-contained breathing apparatus
	Ballistic Engineered Armored Response Counter Attack Trucks (BEARCATs)
	EOC software for situational awareness and information sharing
	Life safety rope
	Explosive entry equipment and bomb containment vessels

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Training	Bomb squads at FBI's hazardous device school
	Large vehicle bomb counter measures
	Search and rescue, trench, confined space, river and flood, etc.
	Haz/Mat incident commander, technician and specialist
	Operational maritime security
	Safety officer
	Advanced EOC management and operations
Exercises	Enhanced incident management/unified command
	Bay Area Urban Shield full scale exercises
	California Golden Guardian full scale exercises

6.3.1 Law Enforcement Tactical Teams

With UASI funding, the Bay Area's law enforcement tactical teams, e.g., special weapons and tactics (SWAT) teams, have shown steady improvement in their ability to assess an incident, develop an initial incident action plan, and properly identify terrorists versus hostages and employ necessary tactics to address the terrorist threat. Today, the teams are further able to use scouts to gather on-site intelligence, communicate among team members, and can more effectively and safely move through large open spaces during an incident, such as one involving an active shooter at a school or other public facility.

6.3.2 Public Safety Bomb Squads

The Bay Area is home to thirteen FBI certified public safety bomb squads. Among these thirteen squads, three are Type 1 and the rest are Type 2 under the NIMS. The Type 1 squads are capable of handling a complex incident to include multiple or simultaneous life-threatening or time-sensitive IEDs involving sophisticated improvised energetic materials, electronic/remote firing systems, and tactical explosive breaching support. Type 1 squads have "render safe" capabilities up to and including large VBIEDs, and can operate in a CBRN environment and support tactical team operations.¹⁸ Type 2 squads are capable of handling a moderate incident to include a life-threatening or time-sensitive scenario involving sophisticated improvised energetic materials and electronic/remote firing systems. Type 2 squads have "render safe"



¹⁸ See, Federal Emergency Management Agency, *Typed Resource Definitions, Law Enforcement and Security Resources* (July 2007), page 5.

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capabilities up to and including a medium VBIED and can operate in a CBRN environment.¹⁹

Urban Shield has shown that virtually all of the region's thirteen public safety bomb squads have increased their capabilities dramatically through the addition of UASI-funded explosive device response operations equipment and training. This includes using robotic, diagnostic and "render safe" equipment to successfully respond to IED incidents. Moreover, NIMS and the incident command system (ICS) training have improved the squads' command, control, and intelligence gathering capabilities. For example, the public safety bomb squads are now well versed in the recommended procedures and safety objectives for establishing onsite command and control involving IEDs, and the squads' intelligence gathering and communication functions are now well above the required levels set by the federal government. These and other enhancements are supported by real-world incident operations.

On September 13, 2011, the San Jose Police Department's Type 1 Bomb Squad responded to a call involving four IEDs, along with several firearms and ammunition inside a home in downtown San Jose. After further investigation, it was discovered that these four IEDs were "live." As a result, the police evacuated residents from an entire block within the vicinity of the house. Investigators and bomb technicians determined the safest way to dispose of the material was to detonate it. The squad members utilized the UASI-funded QinetiQ Dragon Runner™ 20 robot to safely remove the four devices remotely. Before obtaining this robot, the San Jose bomb technicians would have been required to render safe these devices in person.

In 2009, the National Bomb Squad Commanders Advisory Board was requiring all civilian bomb squads to have a bomb robot or lose federal certification. At that time, the City of Berkeley's bomb squad did not have a bomb robot. However, with UASI funds, Berkeley was able to acquire a bomb robot that can manage bomb calls remotely and assist the city's SWAT team with reconnaissance and communications involving barricaded suspects. Shortly after acquiring the robot, and also with UASI funds, Berkeley obtained a camera accessory for the robot that allows the robot to see the undercarriage and interior of vehicles to help deter and detect VBIEDs. The camera also assists the city's SWAT team with reconnaissance of raised first floor windows.

¹⁹ Id.

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6.3.3 Search and Rescue Teams

The region's investment in urban search and rescue (US&R) teams has enhanced such capabilities throughout the region. The Bay Area's US&R teams vary from the most capable teams, Type 1, to the least capable, Type 4 under the NIMS. Typing is based largely on equipment and training. Most of the region's teams fall under the Type 2 umbrella. These Type 2 teams have the capability to conduct safe and effective search and rescue operations at structure collapse incidents involving the collapse or failure of heavy wall construction, e.g., caused by an earthquake or VBIED. These teams are also capable of conducting high angle rope rescue (not including highline systems), confined space rescue, and trench and excavation rescue.²⁰ All of the Bay Area's teams have consistently shown the ability to work well within the ICS framework. Based upon gaps discovered in 2010, in 2011, the US&R teams improved the interoperability of their respective equipment caches with multi-agency teams able to work more efficiently and effectively together. This was validated as part of the UASI funded 2011 Urban Shield exercise.



6.3.4 Emergency Operations Center Management



The Bay Area has also showed improvement in EOC management during a large-scale disaster encompassing multiple counties in the region. This includes the ability to shift from the primary to back-up EOC sites to ensure the EOCs are in a functional state of readiness and that continuity of command and control can be maintained if a transition occurs. For example, during the 2010 Urban Shield exercise, three of the EOC's operated from their back-up sites and determined they were functional and operationally sound. The fourth was asked to move operations to the back-up site during the exercise based upon a simulated failure to their primary EOC facility. This fourth EOC planned to temporarily hand over command, control, and communications to one of the other three EOCs during the transition process. However, the fourth EOC was so successful in its transition using UASI funded technology and redundant communication systems they did not need any outside assistance.

²⁰ California Emergency Management Agency, *California Fire Service and Rescue, Emergency Mutual Aid System, Urban Search & Rescue Program*, (November 2010), page 17.

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6.3.5 Emergency Public Safety and Security Response

Under the UASI program, the SFPD, the San Francisco Sheriff's Department and the San Mateo County Sheriff's Office are leading the development of a regional Type 1 mobile field force (MFF) capable of managing large-scale operations, including managing large and violent crowds, traffic control enforcement, and general saturation presence for the purpose of maintaining order and preserving the peace to include in CBRN environments.²¹ This highly trained and specially equipped regional asset responds 24 hours a day, 7 days a week to emergencies occurring in the jurisdiction of the three current participants and acts as a mutual aid resource to other local, state and federal agencies in the Bay Area.

The SFPD and the two Sheriff's Departments that make-up the MFF have been collectively called to respond to numerous mutual aid requests in the region over the years. This includes the City of Oakland for the 2010 Meshserle trial, the City of San Bruno for the 2010 gas pipeline explosion and fire, several protests in 2011 surrounding the shooting of a man at a BART station in San Francisco, riots following the San Francisco Giants 2010 World Series victory, and numerous violent protests in 2011 and 2012 throughout the region.

In addition to supporting security at major events and incidents, the MFF also supports critical infrastructure protection to include county hospitals as a security element during a medical surge event, and is involved in food and water supply distribution in the event of a terrorist or natural disaster in the region.

²¹ See, Federal Emergency Management Agency, *Typed Resource Definitions, Law Enforcement and Security Resources* (July 2007), page 12.

6.4 Interoperable Communications

In 2008, the Bay Area developed a five-year strategic plan to achieve region-wide interoperable communications among emergency responders, as defined by the SAFECOM Interoperability Continuum, and in coordination with the California Statewide Communications Interoperability Plan (CalSCIP). The strategic plan introduced the Bay Regional Interoperable Communications System (BayRICS) as the vision for communications interoperability in the region.

A key element to achieving the BayRICS vision is BayComm. BayComm is the “system of systems” voice initiative that seeks to provide Bay Area first responders with a common frequency band and a common open digital standard in Project (P) 25.²² To implement BayComm, the Bay Area has divided itself into four sub-regions for the purpose of strengthening communications capabilities: the Silicon Valley Regional Communications System (SVRCS), the West Bay Regional Communications System (WBRCS), the East Bay Regional Communications Systems Authority (EBRCSA), and the North Bay Regional Communications System (NBRCS). Consistent with federal guidance, the BayComm focuses on three core elements of interoperability:

Governance – A three-tiered structure for Bay Area decision-making and planning that allows local and Regional Communications Systems (RCS) to control their respective systems.

Standard Operating Procedures (SOPs) – Common SOPs related to the NIMS and the ICS to support day-to-day task force and mutual aid types of interoperable communications.

Technology – Standards-based wireless technology that facilitates communications within RCS, linking the EBRCS and WBRCS. BayLink, a conventional radio system in the Bay Area, facilitates communications between agencies not affiliated with an RCS. In addition, BayLoop is a digital microwave network that links the various interoperability projects across the region, enabling features such as seamless roaming and the ability for dispatch centers to contact their neighboring dispatch centers to exchange information.

²² P25 is recognized nationwide as the voice standard for public safety by the Association of Public-Safety Communications Officials and the Federal Government through the DHS Office of Emergency Communications, FEMA, and the National Institute of Standards and Technology.

Table 12: Major UASI Funded Communications Initiatives	
	Deliverable
Planning	Joint interoperable communications protocols between the Bay Area UASI and the Sacramento UASI
	Communications and Interoperability plans and protocol for all BayRICS Counties/Operational Areas and RCS
	MOU for EBRCS, WBRCS, WBRCS and for Counties within the Bay Area, not part of a regional system, to enhance regional governance and SOPs for mutual roaming between P25 systems at the command and responder levels
	Studies for migrating to next generation systems for Alameda , Contra Costa, Solano, and Sonoma Counties and the city of Oakland
Equipment	Implementation of core communications infrastructure; Completing EBRCS and WBRCS
	BART underground system upgrade for interoperability with San Francisco and Oakland first responders
	Microwave systems region-wide linkage E-COMM Microwave Network
	Expansion of digital microwave systems to Sacramento
	Completion of Bay Area Digital Microwave Network (BayLoop)
	Portable P25 radios and software for emergency responders
Training	Training on county Tactical Interoperable Communications Plans
Exercises	Test and evaluate county communication systems redundancies
	Test and evaluate communication systems of EOCs
	Test mobile command communications between multiple areas and their associated area commands
	Exercises to test established plans, e.g., Tactical Interoperable Communications Plans

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6.4.1 Build out of BayComm

In 2011 the EBRCS achieved several major milestones towards the completion of their system when police departments from the cities of Richmond, San Pablo, Hercules, El Cerrito, Pinole, and Kensington migrated to the West Contra Costa County simulcast cell. The simulcast allows the same signal to be broadcast from multiple sites. These six police departments account for over 900 mobile and handheld radios.

The other EBRCS major milestone occurred in July 2012 with the migration of the police departments from the cities of Pleasanton, Livermore, and Dublin to the simulcast cell located in East Alameda County. The remaining four simulcast cells are nearing completion and their users will begin migrating during fourth quarter 2012. Once all 40 participating agencies have moved to the EBRCSA, there will be over 12,000 subscriber radios operational on the same system. This will solve an interoperable communications problem that has existed for decades and enhance the public safety of the 2.5 million people who reside in the East Bay.

The EBRCS is using a combination of upgraded Motorola Gold Elite consoles and the Internet protocol-based MCC 7500 consoles. Both consoles feature an easy to use Graphical User Interface. The seamless integration of the dispatch console into the radio system gives dispatchers full access to system functionality, allowing access and control of the Project 25 trunked resources, as well as superior audio quality. At final build out, the EBRCSA will consist of 6 cells with a total 36 sites. The system will be a P-25 compliant communications system that will provide fully interoperable communications to all public agencies within the two counties of the East Bay.

Most recently, in October 2012, the EBRCS was successfully used as the primary communications platform during the Urban Shield full scale exercise. Through the region's ICS Form 205 (Incident Radio Communications Plan) the system was tested over a 48 hour period involving a regional emergency operations center, five counties, eight area commands, and at over 40 incident sites in the Bay Area. The EBRCS supported dozens of agencies and hundreds of local responders. This included all transportation, medical and logistics units. This was the first time the system had been used on such a large scale. The successful use of the system among so many jurisdictions and agencies demonstrates that the UASI (and other) investments made in building out the system have enhanced communications capabilities in ways that have never existed in the region before.

6.4.2 Communications Capability Assessments

In 2008, DHS issued the National Emergency Communications Plan (NECP), which outlined the vision of emergency communications for the nation over five years and established tangible goals to help measure implementation. The first goal in the NECP called for 90% of all urban areas designated within the UASI program to be able to demonstrate, by 2010, "response-level emergency communications within one hour for routine events involving

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multiple jurisdictions and agencies.”²³ In 2010, in coordination with the DHS Office of Emergency Communications, the Bay Area successfully demonstrated its ability to meet this goal using Stage 3 of the Amgen Tour of California Bike Race as the test environment.

The Amgen Tour of California Bike Race is a Tour de France-style cycling road race involving 160 bicycle racers from around the globe. It covers more than 750 miles in the Counties of San Francisco, San Mateo and Santa Cruz and is one of the largest cycling events in the United States. The race took place over an eight-day period (May 16-23, 2010) and included multiple stages. Stage three of the race was held on Tuesday, May 18, 2010. Approximately 100 emergency response personnel from state and local agencies supported the event.

Several response-level emergency communications *successes* were identified during the event:

- Emergency response agencies in counties throughout the Bay Area had access to common statewide mutual aid and interoperability channels. The California Law Enforcement Mutual Aid Radio System (CLEMARS) channel was identified as a common channel across all law enforcement agencies participating in the event.
- Plain language as called for under the NIMS was consistently used throughout the event during radio communications.
- Commanders and supervisors established and maintained command and control among response-level emergency personnel within their respective jurisdictions and agencies.²⁴

The event also identified several *opportunities for improving* regional response-level emergency communications in the region. Major recommendations included:

- The use of an Area Command structure for similar events in the Bay Area that have distinct segments across multiple counties would be beneficial.
- The region should create a single Incident Action Plan (IAP) to incorporate the planning information from all response entities and locations within the confines of a large-scale pre-planned event. This should include a unified Incident Command System (ICS) Form 205 (Incident Radio Communications Plan) in the IAP.
- Provide an opportunity for all individuals who could potentially fill the Communications Unit Leader (COML) position to attend the All Hazards Type III COML training course when available. The region should also consider identifying a single COML early in the planning stages for future multi-jurisdictional events.²⁵

²³ U.S. Department of Homeland Security, Office of Emergency Communications, *National Emergency Communications Plan*

²⁴ U.S. Department of Homeland Security, Office of Emergency Communications, *After Action Report/Improvement Plan, Bay Urban Area 2010 Amgen Tour of California – Stage 3*(May 2010), page iv.

²⁵ Id.

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In addition to federally-led assessments, regional assessments through Urban Shield have also demonstrated improved communications capabilities based upon UASI investments. In the 2009 exercise, the region successfully validated communication systems redundancies, ensured interoperability, and piloted new systems. Emergency medical services and fire personnel communicated effectively with law enforcement personnel on a designated radio channel.

In 2011, during Urban Shield, area commanders established communications links with each of their respective scenario sites for the exercise and with the department operations center. The various communication types included: portable radios, landlines, cell phones, and runners. Area commanders delivered initial briefings to staff, confirmed roles and responsibilities, reiterated the plan for the 12-hour operational period, and defined the specific goals. Finally, when a communication format would not operate properly, the area commands were able to adapt to the situation and quickly switch to another communications format that did work.

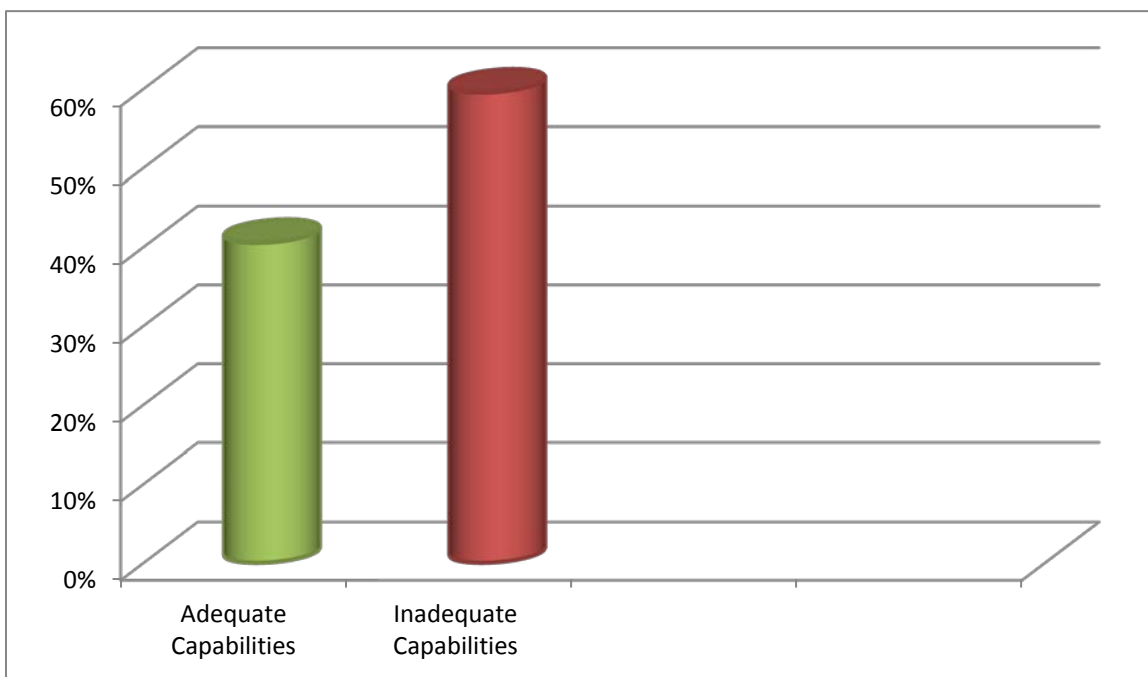
Section 7 Capability Gaps

This section provides an overview of the gaps in capabilities that remain despite the improvements that have been achieved. The analysis focuses on where capabilities are insufficient to address the threats and hazards that pose the greatest risk to the Bay Area, how gaps in capabilities have changed from 2009 to 2011, and where gaps are by homeland security mission area and Bay Area homeland security goals.

7.1 Risk and Remaining Capability Gaps

Despite the region’s dual use capability improvements, gaps in overall level of ability remain among 22 of the 37 Target Capabilities, with 15 capabilities having adequate levels of ability. This is outlined in Figure 17 below.

Figure 17: Bay Area UASI 2011 Capability Gap Analysis



Among the 15 adequate capabilities, five are priority capabilities for the Bay Area: Intelligence Analysis and Production, Explosive Device Response Operations, WMD/HazMat Response and Decontamination, Mass Care, and Mass Prophylaxis. Among those 22 Target Capabilities with remaining gaps, 17 are priority capabilities. Four of those 17 priority Target Capabilities have significant gaps and need “Extra Attention.” Those four capabilities are: Risk Management, Counter-Terror Investigation and Law Enforcement, Information Gathering and Recognition of Indicators and Warnings, and Planning.

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Gaps in priority capabilities is based largely on the fact that despite improvements in all of those priority capabilities, most of the priority Target Capabilities' require a still-higher level of ability to effectively prevent, protect against, respond to, and recover from acts of terrorism and other hazards that pose a significant risk to the region. The need for a higher level of ability is especially true for the four Target Capabilities needing "Extra Attention", as they are among the top five risk relevant (most necessary) capabilities for the region.

7.1.1 Capability Gap Comparison

From 2009 to 2011 the Bay Area took the positive step of *decreasing capability gaps* as measured against risk across four²⁶ capabilities:

- Critical Infrastructure Protection
- Responder Safety and Health
- Fatality Management
- Medical Surge

This means that based upon the region's understanding of its terrorism risk profile and the capabilities necessary to address that risk profile, the gaps among those capabilities decreased, e.g., went from "Needs Extra Attention" to "Needs Attention." However, the region saw an *increase in capability gaps* as measured against terrorism risk, e.g., went from "Adequate" to "Needs Attention" among six capabilities. These six²⁷ capabilities are:

- Counter Terrorism Investigation and Law Enforcement
- Information Gathering and Recognition of Indicators and Warning
- Planning
- Intelligence and Information Sharing and Dissemination
- Volunteer Management and Donations
- Structural Damage Assessment

The increase in capability gaps occurred despite the fact that the level of ability among three of these capabilities actually *increased*. Those were Planning, Intelligence and Information Sharing, and Dissemination, and Volunteer Management and Donations.²⁸ While the increase in gaps may appear counterintuitive for those capabilities that improved, the basis for this is that *the Bay Area's risk profile actually increased over time*.²⁹ The

²⁶ Each of the 4 capabilities is among the region's 22 priority capabilities.

²⁷ The first four bulleted capabilities are among the 22 priority capabilities.

²⁸ Two capabilities sustained levels of ability: Counter Terrorism Investigation and Law Enforcement, and Information Gathering and Recognition of Indicators and Warning. And one, Structural Damage Assessment, saw a decrease in level of ability.

²⁹ The Bay Area's understanding of that risk also improved as evidenced by a rise in the region's level of ability in the Risk Management Target Capability.

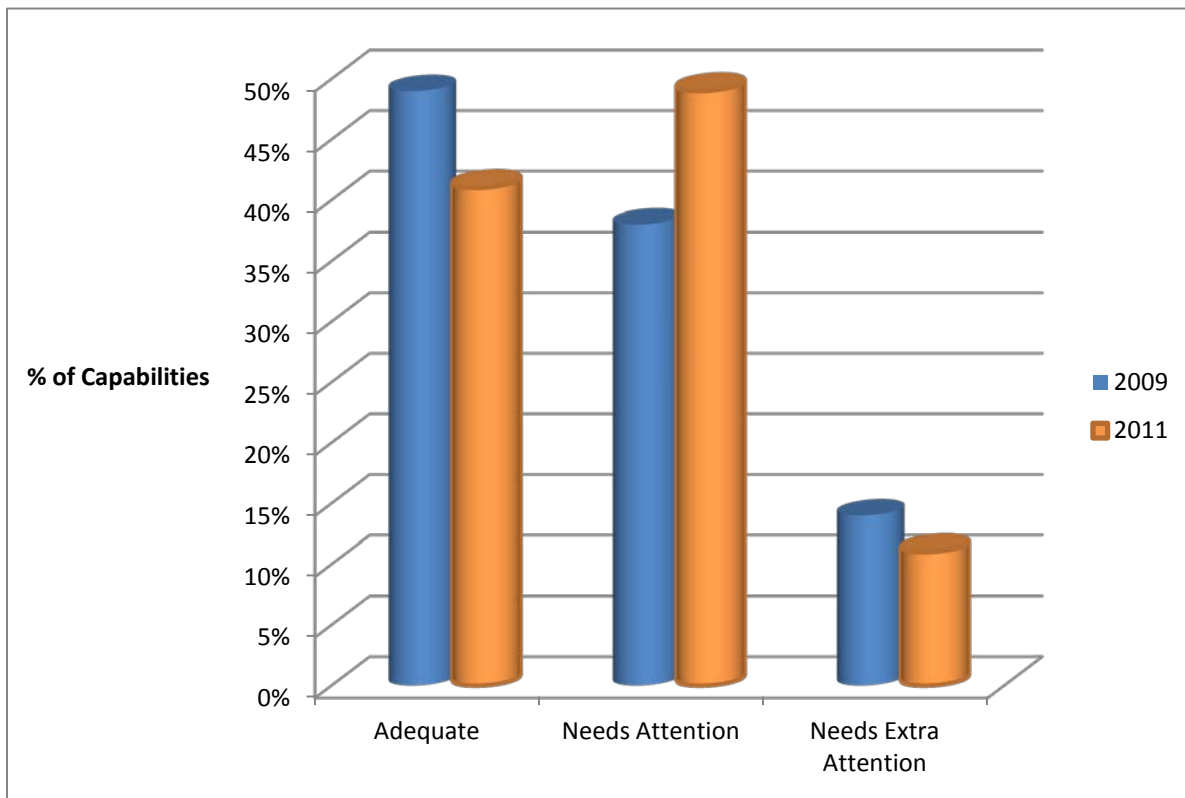
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increase in the Bay Area’s risk profile was validated by an independent terrorism risk assessment conducted by DHS in 2011 for purposes of allocating UASI grant funds. That assessment found that the Bay Area’s overall “risk score” increased relative to other major urban areas across the United States. This increase in risk requires a greater level of ability among those Target Capabilities directly related to addressing that risk. In short, for those Target Capabilities that did increase in level of ability, that improvement did not keep pace with the increase in risk to the Bay Area’s CIKR as represented by acts of terrorism.

Figure 18 below summarizes the gap analysis for all 37 of the Target Capabilities as compared during the period from 2009 to 2011. Capabilities assessed in 2009 are in blue and those assessed in 2011 are in orange. The gap analysis comparison shows that:

- The number and percentage of capabilities with an “Adequate” rating *decreased* from 18 or 49% in 2009, to 15 or 41% in 2011.
- There was an *increase* in the total number of capabilities that “Need Attention”, with 14 or 38%, of the capabilities needing attention in 2009, and 18 or 49%, falling into that category in 2011.
- However, the number of capabilities needing “Extra Attention” actually *decreased* from 2009 to 2011, going from five capabilities or 14%, to four capabilities or 11%, respectively.

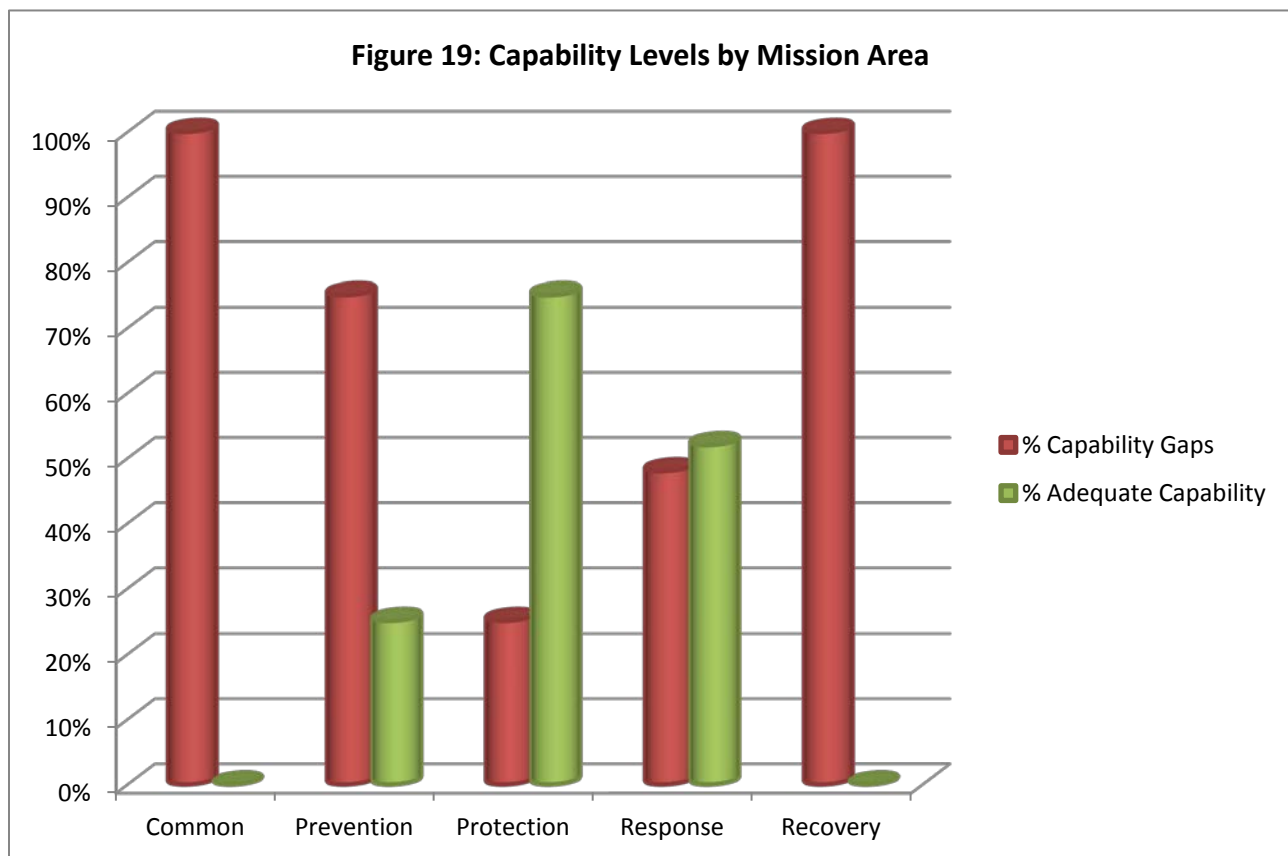
Figure 18: 2009-2011 Capability Gap Analysis Comparison



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7.1.2 Gaps by Mission Area

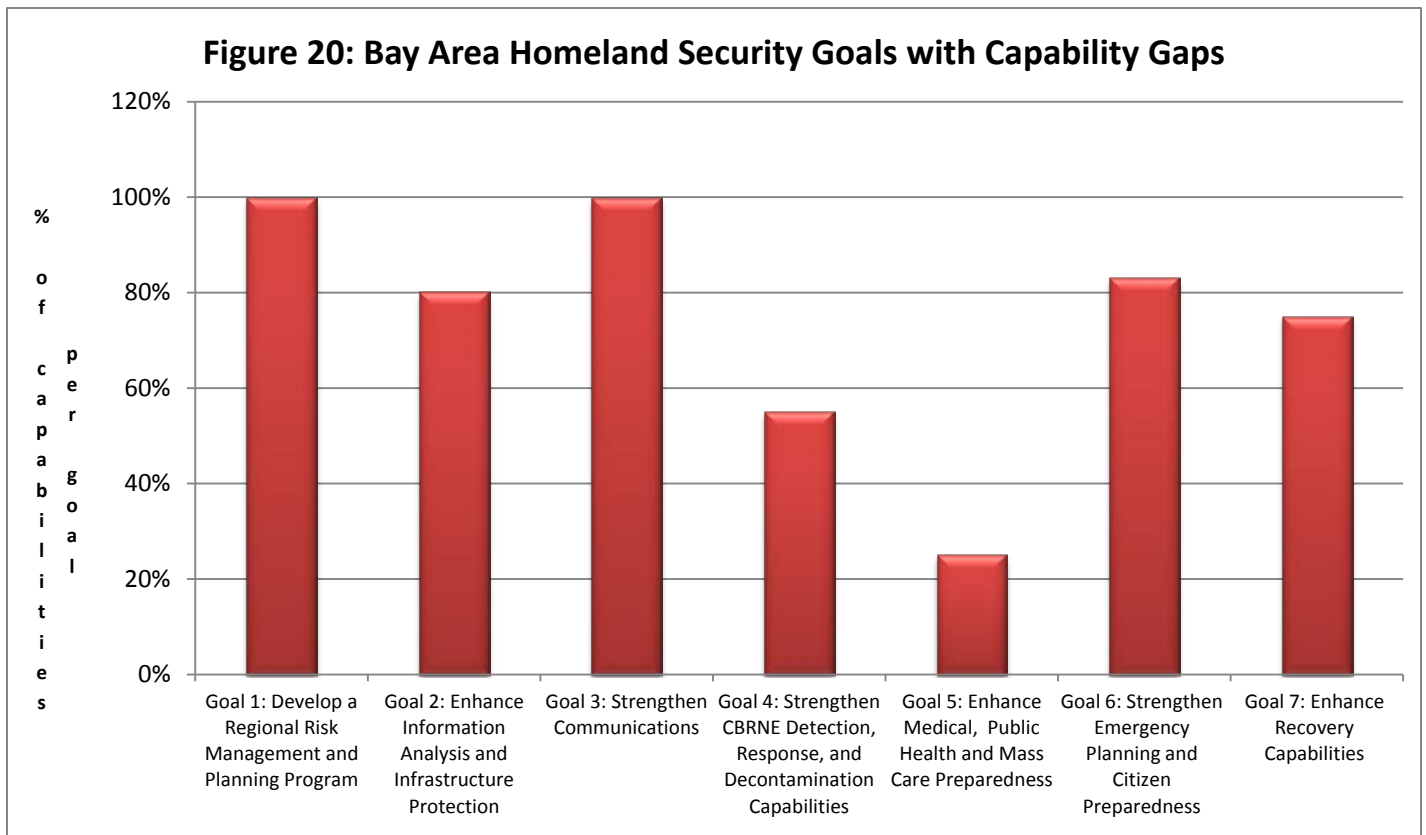
An analysis of capability gaps (and strengths) by mission areas shows that gaps are spread throughout the four mission areas and the common mission area as outlined in Figure 19 below. Capability gaps are in red and adequate capabilities are referenced in green. For both common and recovery, every associated Target Capability has a gap requiring either “Extra Attention” or “Attention.” Therefore, each of the two mission areas is rated as 100% for gaps in the figure. No capabilities are adequate in either mission area. The protection mission area has the fewest gaps, although the one capability in this area with a gap, Critical infrastructure Protection, is among the most important to the Bay Area. The response mission area has the second fewest number of capabilities with gaps, followed by the prevention mission area.



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7.1.3 Gaps by Bay Area Homeland Security Goals

Finally, an analysis of capability gaps by *Bay Area Homeland Security Strategy* goals shows that gaps remain across all of the applicable goals. This is highlighted in Figure 20 below. Two of the goals have 100% gaps, meaning each Target Capability specifically linked to an objective within a goal has gaps. In the case of goal 3, there is only one objective in the goal and it is based entirely on enhancing the Communications capability. Given that gaps remain in that capability, the percentage of objectives with gaps is 100%. Goal 1 has only two capabilities linked to it: Planning and Risk Management, each of which has gaps. The goal with the fewest gaps is goal 5, which is centered on strengthening medical and health capabilities. Despite the fact that goal 5 has eight capabilities tied to it, the absence of gaps may be the result, in part, of the fact that medical and health capabilities are supported by UASI, HHS and other grant funds.



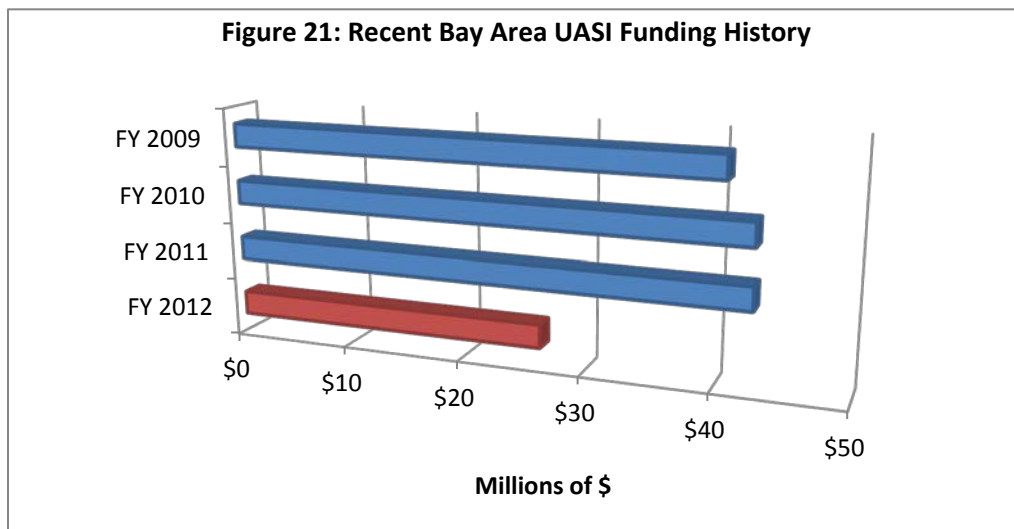
Section 8 Sustainment

It takes time and resources to build capabilities, and ultimately to sustain them. The capabilities developed through the UASI program in the Bay Area have made a significant difference in preparedness and security across the region. However, the preparedness cycle is not linear. When it comes to preparedness, there is no “end state”, as risks sometimes change, plans need updating, people retire or move on, new personnel require training, and equipment is replaced or upgraded. As long as there are risks, the Bay Area will need to invest in preparedness initiatives to address those risks.

The capabilities developed using UASI and other grant funds supplement local expenditures and allow the Bay Area to build toward enhanced capability levels designed to support federal missions, specifically, counter-terrorism, homeland security, and catastrophic incident response. Without such funding, the region would not have the resources to develop high capability levels in the first place, let alone sustain them.

8.1 Consequences of UASI Funding Cuts

In FY 2012, the Bay Area suffered a massive reduction in UASI funds going from \$42.8 million in FY 2011 to \$26.4 million in FY 2012, a 39% reduction highlighted in red in Figure 21 below. This cut was implemented despite the fact that the region’s relative risk score as calculated by DHS and compared to other urban areas across the nation actually *increased* in FY 2012.



These cuts put in jeopardy the significant capability gains made over the last several years and make it far more difficult for the Bay Area to sustain and enhance vital capabilities needed to address the risk from terrorism, crime, natural and other hazards. For example, the Bay Area had to cancel numerous FY 2012 projects to include:

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- Projects to implement the region's interoperable communications plan. This will delay the ability of the region to fully implement interoperable communications among responders during an emergency incident.
- Improve equipment capabilities for several public safety bomb squads around the region. This will degrade over time the ability of the region's bomb squads to respond to and render safe IEDs.
- Provide first responder personal protective equipment for CBRNE incidents. This will decrease the ability of responders to operate safely in a CBRNE environment.
- Supply search and rescue equipment to the fire service. This will degrade over time the search and rescue capabilities of the various teams across the region making it more difficult to find and rescue people in distress.
- Evacuation supplies for people with access and functional needs, and much more. This will make it more difficult to evacuate effectively and safely individuals with access and functional needs.

These UASI cuts also make it far more difficult for the region to launch other initiatives, such as the implementation of a regional emergency public information and warning strategic plan designed to integrate people, plans and technology across the region for catastrophic regional incidents.

Finally, the UASI grant program has been a groundbreaking one that has focused on fostering regional collaboration and building regional capabilities to manage potential acts of terrorism, while simultaneously enhancing the Bay Area's ability to address all hazards. The UASI program's unique requirements of regional governance and planning have positively changed the way public health, safety and homeland security agencies operate across the Bay Area. As threats and hazards facing the Bay Area continue to evolve and increase, it remains to be seen whether the region can sustain the benefits derived from the UASI program if its allocation of UASI funds continues to diminish.

Appendix A Homeland Security Mission Areas

Prevention

Prevention involves actions to avoid an incident or to intervene or stop a terrorist incident from occurring. It involves applying intelligence to a range of activities that may include such countermeasures as deterrence operations; heightened inspections; improved surveillance and security operations; investigations to determine the full nature of the threat; and specific law enforcement operations aimed at deterring, preempting, interdicting, or disrupting illegal activity and apprehending potential perpetrators.

Protection

Protection involves actions to reduce the vulnerability of critical infrastructure or key resources in order to deter, mitigate, or neutralize terrorist attacks, major disasters, and other emergencies. It includes awareness elevation and understanding of threats and vulnerabilities to critical facilities, systems, and functions; identification and promotion of effective infrastructure sector-specific protection practices and methodologies; and information sharing among private entities within the sector, as well as between government and private entities.

Response

Response includes activities that address the short-term, direct effects of an incident. Response includes immediate actions to save lives, protect property, and meet basic human needs. Response also includes the execution of emergency operations plans and of mitigation activities designed to limit the loss of life, personal injury, property damage, and other unfavorable outcomes.

Recovery

Recovery involves activities that include the development, coordination, and execution of service-and-site-restoration plans; the reconstitution of government operations and services; individual, private-sector, nongovernmental, and public-assistance programs to provide housing and to promote restoration; long-term care and treatment of affected persons; and additional measures for social, environmental, and economic restoration.

Appendix B Target Capabilities List

Common Capabilities

Planning
Communications
Community Preparedness and Participation
Risk Management
Intelligence and Information-sharing and Dissemination

Prevent Mission Capabilities

Information Gathering and Recognition of Indicators and Warning
Intelligence Analysis and Production
Counter-Terror Investigation and Law Enforcement
CBRNE Detection

Protect Mission Capabilities

Critical Infrastructure Protection
Food and Agriculture Safety and Defense
Epidemiological Surveillance and Investigation
Laboratory Testing

Respond Mission Capabilities

On-Site Incident Management
Emergency Operations Center Management
Critical Resource Logistics and Distribution
Volunteer Management and Donations
Responder Safety and Health

Respond Capabilities Cont.

Emergency Public Safety and Security Response
Animal Disease Emergency Support
Environmental Health
Explosive Device Response Operations
Fire Incident Response Support
WMD and Hazardous Materials Response and Decontamination
Citizen Evacuation and Shelter-in- Place
Isolation and Quarantine
Search and Rescue (Land-Based)

Emergency Public Information and Warning
Emergency Triage and Pre-Hospital Treatment
Medical Surge
Medical Supplies Management and Distribution
Mass Prophylaxis
Mass Care (Sheltering, Feeding and Related Services)
Fatality Management

Recover Mission Capabilities

Structural Damage Assessment
Restoration of Lifelines
Economic and Community Recovery

Appendix C Bay Area Goals, Objectives and Target Capabilities

Goal 1 Develop a Regional Risk Management and Planning Program	
Target Capability	Bay Area Objective
Risk Management Planning	Objective 1.1 Develop and Enhance Risk Management Capabilities: The Bay Area will identify and assess risks, prioritize and select appropriate plans, solutions, and investments based on risk reduction, and monitor the outcomes of risk based funding allocation decisions.

Goal 2 Enhance Information Analysis and Infrastructure Protection Capabilities	
Target Capability	Bay Area Objective
Counter-Terrorism Investigations and Law Enforcement	Objective 2.1 Increase Counter-Terrorism Investigations and Law Enforcement: The Bay Area law enforcement community will ensure that suspects involved in criminal activities related to homeland security are successfully identified, deterred, detected, disrupted, investigated, and apprehended.
Information Gathering and Recognition of Indicators and Warnings	Objective 2.2 Enhance Information Gathering and Recognition of Indicators and Warnings: The Bay Area will identify and systematically report suspicious activities or circumstances associated with potential terrorist or criminal pre-operational planning for vetting and review and operational follow-up by the appropriate authorities.
Intelligence Analysis and Production	Objective 2.3 Strengthen Intelligence Analysis and Production: The Bay Area will sustain and build upon its multidisciplinary, all-source information/intelligence fusion center, in order to produce timely, accurate, clear and actionable intelligence/information products in support of regional prevention, awareness, deterrence, response and public safety operations.
Intelligence Information-sharing and Dissemination	Objective 2.4 Enhance Intelligence Information-sharing and Dissemination: The Bay Area will develop and sustain systems and procedures to effectively and timely share information and intelligence across Federal, State, local, tribal, territorial, regional, and private sector entities within the Bay Area to achieve coordinated awareness of, prevention of, protection against, mitigation of, and response to a threatened or actual terrorist attack, major disaster, or other emergency.
Critical Infrastructure Protection	Objective 2.5 Increase Critical Infrastructure Protection: The Bay Area will assess the risk to the region's critical infrastructure and key resources from acts of terrorism and natural hazards and deploy a suite of actions to enhance protection and reduce the vulnerability of the region's critical infrastructure and key

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	resources from all hazards.
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Goal 3 Strengthen Communications Capabilities

Target Capability	Bay Area Objective
Communications	Objective 3.1 Enhance Communications Capabilities: The emergency response community in the Bay Area will have the ability to provide a continuous flow of mission critical voice, data and imagery/video information among multi-jurisdictional and multidisciplinary emergency responders, command posts, agencies, and Bay Area governmental officials for the duration of an emergency response operation.

Goal 4 Strengthen CBRNE Detection, Response, and Decontamination Capabilities

Target Capability	Bay Area Objective
Fire Incident Response Support	Objective 4.1 Enhance Fire Incident Response Support Operations: Fire service agencies across the Bay Area will dispatch initial fire suppression resources within jurisdictional response time objectives, and firefighting activities will be conducted safely with fire hazards contained, controlled, extinguished, and investigated, with the incident managed in accordance with local and state response plans and procedures.
Search and Rescue	Objective 4.2 Increase Search and Rescue Capabilities: Search and rescue operations in the Bay Area will be conducted to rescue and transfer the greatest number of victims (human and, to the extent that no humans remain endangered, animal) to medical or mass care capabilities, in the shortest amount of time, while maintaining rescuer safety.
CBRNE Detection	Objective 4.3 Strengthen CBRNE Detection: The Bay Area will develop systems and procedures to rapidly detect and identify chemical, biological, radiological, nuclear, and/or explosive (CBRNE) materials at ports of entry, critical infrastructure locations, public events, and incidents and communicate CBRNE detection and warning information to appropriate entities and authorities across the State and at the Federal level.
Explosive Device Response Operations	Objective 4.4 Enhance Explosive Device Response Operations: Public safety bomb squads across the Bay Area will build and sustain capabilities to provide on-scene threat assessments, and the explosive and/or hazardous devices will be located and rendered safe, and the area cleared of hazards.
Critical Resource Logistics and Distribution	Objective 4.5 Increase Critical Resource Logistics and Distribution Capabilities: The Bay Area will develop a system to track and manage critical resources and make them available to incident managers and emergency responders from across the Bay

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	Area upon their coordinated request for proper distribution to enhance emergency response operations and aid disaster victims in a cost-effective and timely manner.
WMD/Hazardous Materials Response and Decontamination	Objective 4.6 Increase WMD/Haz Mat Response and Decontamination: Hazardous materials teams across the Bay Area will build and sustain capabilities to rapidly identify and mitigate the effects of a hazardous materials release through victim rescue, decontamination and treatment and effectively protect responders and at-risk populations.
On-site Incident Management	Objective 4.7 Strengthen On-site Incident Management: The Bay Area will develop and sustain a fully integrated response system through a common framework of the Incident Command System and Unified Command including the use of incident action plans and the tracking of on-site resources in order to manage major incidents safely, effectively and efficiently.
Responder Safety and Health	Objective 4.8 Increase Responder Safety and Health: The Bay Area will strive to reduce the risk of illnesses or injury to any Bay Area first responder, first receiver, medical facility staff member, or other skilled support personnel as a result of preventable exposure to secondary trauma, chemical/radiological release, infectious disease, or physical/emotional stress after the initial incident or during decontamination and incident follow-up.
Emergency Public Safety and Security Response	Objective 4.9 Strengthen Emergency Public Safety and Security Response: Public safety agencies within the Bay Area will be able to keep the public and critical infrastructure safe by securing a particular incident scene and maintaining law and order following an incident or emergency to include managing the criminal justice prisoner population.

Goal 5 Enhance Medical, Public Health and Mass Care Preparedness

Target Capability	Bay Area Objective
Emergency Triage and Pre-Hospital Treatment	Objective 5.1 Enhance Emergency Triage and Pre-Hospital Treatment: Emergency medical services (EMS) resources across the Bay Area will effectively and appropriately be dispatched to provide pre-hospital triage, treatment, transport, tracking of patients, and documentation of care appropriate for the incident, while maintaining the capabilities of the EMS system for continued operations up to and including for mass casualty incidents.
Medical Surge	Objective 5.2 Increase Medical Surge: Those injured or ill from a medical disaster and/or mass casualty event in the Bay Area will rapidly and appropriately be cared for. Continuity of care will be maintained for non-incident related illness or injury.
Mass Prophylaxis	Objective 5.3 Strengthen Mass Prophylaxis: With the onset of an event, appropriate drug prophylaxis and vaccination strategies will be implemented across the Bay Area in a timely manner to prevent

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	the development of disease in exposed individuals. Public information strategies will include recommendations on specific actions individuals can take to protect their family, friends, and themselves.
Medical Supplies Management and Distribution	Objective 5.4 Improve Medical Supplies Management and Distribution: Critical medical supplies and equipment in the Bay Area will be appropriately secured, managed and distributed to field responders and providers, and then restocked in a timeframe appropriate to the incident and according to plan(s).
Isolation and Quarantine	Objective 5.5 Strengthen Isolation and Quarantine: Individuals in the Bay Area who are ill, exposed, or likely to be exposed will be separated and their health monitored in order to limit the spread of a newly introduced contagious disease (e.g., pandemic influenza). Legal authority for those measures will be clearly defined and communicated to all responding agencies and the public.
Laboratory Testing	Objective 5.6 Improve Laboratory Testing: Potential exposure to disease in the Bay Area will be identified rapidly by determining exposure and mode of transmission and agent. Confirmed cases and laboratory results will be reported immediately to all relevant public health, food regulatory, environmental regulatory, and law enforcement agencies in support of operations and investigations.
Epidemiological Surveillance and Investigation	Objective 5.7 Strengthen Epidemiological Surveillance and Investigation: Potential exposure to disease in the Bay Area will be identified rapidly by determining exposure and mode of transmission and agent followed by the issuance and implementation of control measures to contain the spread of the event, thereby reducing the number of cases.
Fatality Management	Objective 5.8 Enhance Fatality Management: The Bay will effectively document, recover and dispose of human remains and items of property and evidence following a disaster.

Goal 6 Strengthen Emergency Planning and Citizen Preparedness Capabilities

Target Capability	Bay Area Objective
EOC Management	Objective 6.1 Enhance EOC Management: Emergency operations centers (EOCs) across the Bay Area will function in accordance with the National Incident Management System (NIMS) and the Standardized Emergency Management System (SEMS), emergency plans and standard operating procedures. EOCs will effectively plan, direct and coordinate information and activities internally within EOC functions, and externally with other multi-agency coordination entities, command posts and other public information to effectively coordinate disaster response

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	operations.
Emergency Public Information and Warning	Objective 6.2 Strengthen Emergency Public Information and Warning Capabilities: The Bay Area will develop an integrated system of systems involving government agencies, the general public, and the private sector that allows for the transmission of clear, specific, accurate, certain and consistent alerts and warnings to all appropriate recipients through Joint Information Centers, or other means, regarding threats to health, safety, and property.
Citizen Evacuation and Shelter in Place	Objective 6.3 Strengthen Citizen Evacuation and Shelter-in-Place Capabilities: Affected and at-risk populations, to include access and functional needs populations, in the Bay Area will be safely sheltered-in-place or evacuated to safe refuge areas and eventually returned home when safe and feasible.
Mass Care	Objective 6.4 Improve Mass Care: Mass care services, including sheltering, feeding, and bulk distribution, will be rapidly, effectively and efficiently provided for the population, including those with access and functional needs.
Community Preparedness and Participation	Objective 6.5 Increase Community Preparedness and Participation: The Bay Area will build and sustain a formal structure and process for ongoing collaboration between government and nongovernmental resources at all levels to prevent, protect/mitigate, prepare for, respond to and recover from all threats and hazards.
Volunteer Management and Donations	Objective 6.6 Enhance Volunteer Management and Donations: Volunteers and donations within the Bay Area will be organized and managed throughout an emergency based upon pre-designated plans, procedures and systems.

Goal 7 Enhance Recovery Capabilities	
Target Capability	Bay Area Objective
Structural Damage Assessment	Objective 7.1 Strengthen Structural Damage Assessment Capabilities: The Bay Area will provide accurate situation needs and damage assessments by utilizing the full range of engineering, building inspection, and code enforcement services in a way that maximizes the use of resources, aids emergency response, implements recovery operations, and restores the affected area to pre-event conditions as quickly as possible.
Economic and Community Recovery	Objective 7.2 Enable Economic and Community Recovery: During and following a disaster, the Bay Area will estimate economic impact, prioritize recovery activities, minimize business disruption, and provide individuals and families with appropriate levels and types of relief with minimal delay.
Environmental Health	Objective 7.3 Improve Environmental Health Capabilities: After the primary disaster event, disease and injury will be prevented across the Bay Area through the quick identification of

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	associated environmental hazards, including debris and hazardous waste.
Restoration of Lifelines	Objective 7.4 Enhance Restoration of Lifelines Capabilities: The Bay Area will coordinate activities between lifeline operations and government operations to include a process for getting the appropriate personnel and equipment to the disaster scene so that lifelines can be restored as quickly and as safely as possible.

Goal 8 Enhance Homeland Security Exercise, Evaluation and Training Programs

Target Capability	Bay Area Objective
All Relevant Capabilities	Develop a Regional Exercise and Evaluation Program: The Bay Area exercise program will test and evaluate the region’s enhancement and/or sustainment of the right level of capability based on the risks faced by the region with an evaluation process that feeds identified capability gaps and strengths directly into the region’s risk management and planning process for remediation or sustainment.
All Relevant Capabilities	Objective 8.2 Develop Regional Training Program: The Bay Area will have a multi-discipline, multi-jurisdictional risk and capabilities based training program that enhances and sustains priority capabilities in order to mitigate the region’s most pressing risks.