The Bay Area Homeland Security Strategy and Implementation Plan

2012 - 2015



November 2012

Table of Contents

| BAY AREA HOMELAND SECURITY STRATEGY SUMMARY | 1 |
|---|----|
| BAY AREA HOMELAND SECURITY STRATEGY AND IMPLEMENTATION PLAN | 16 |
| 1.1 INTRODUCTION | 16 |
| 1.1 BACKGROUND | 16 |
| 1.2 BAY AREA OVERVIEW | 16 |
| 1.3 BAY AREA MANAGEMENT | 17 |
| 2.0 PURPOSE | 19 |
| 2.1 Purpose Overview | 19 |
| 2.2 PRIOR AND ONGOING PLANNING EFFORTS | 19 |
| 3.0 VISION | 21 |
| 4.0 FOCUS & MISSION | 22 |
| 4.1 Focus and Mission Overview | 22 |
| 4.2 THE NATIONAL PRIORITIES | |
| 4.3 THE CORE CAPABILITIES | |
| 4.4 PUBLIC HEALTH AND MEDICAL CAPABILITIES | 25 |
| 5.0 RISK OVERVIEW | |
| 5.1 INTRODUCTION | |
| 5.2 RISK METHODOLOGY | |
| 5.3 DESCRIPTION OF THREATS AND HAZARDS | |
| 5.4 CRITICAL INFRASTRUCTURE AND KEY RESOURCES | |
| 5.5 RISK PROFILE | 33 |
| 5.6 Asset Risk by Sector | |
| 5.7 CAPABILITIES ASSESSMENT | 38 |
| 6.0 GOALS, OBJECTIVES & IMPLEMENTATION STEPS | 41 |
| 6.1 Overview | 41 |
| 6.2 ORGANIZING THE GOALS AND OBJECTIVES | 41 |
| 6.3 Structuring the Goals and Objectives | 41 |
| GOAL 1 PLANNING AND RISK MANAGMENT | 43 |
| GOAL 2 INTELLIGENCE AND INFRASTRUCTURE PROTECTION | 46 |
| GOAL 3 COMMUNICATIONS | 55 |
| GOAL 4 CBRNE DETECTION AND RESPONSE | 58 |
| GOAL 5 MEDICAL AND PUBLIC HEALTH PREPAREDNESS | 71 |

| GOAL 6 EMERGENCY PLANNING AND CITIZEN PREPAREDNESS | |
|--|--|
| GOAL 7 RECOVERY | |
| GOAL 8 TRAINING AND EXERCISES | |
| 7.0 STRATEGY IMPLEMENTATION | |
| 7.1 IMPLEMENTATION OVERVIEW | |
| 7.2 INVESTMENT JUSTIFICATIONS | |
| 7.3 STRATEGY IMPLEMENTATION PROCESS | |
| 8.0 STRATEGY EVALUATION | |
| 8.1 EVALUATION OVERVIEW | |
| 8.2 THE EVALUATION PROCESS | |
| 8.3 METHODS FOR EVALUATION | |
| APPENDIX A TARGET AND CORE CAPABILITY CROSSWALK | |
| APPENDIX B RECORD OF CHANGES | |

BAY AREA HOMELAND SECURITY STRATEGY SUMMARY

Background

Homeland Security is the coordinated effort to ensure the entire Bay Area region is prepared to prevent, protect against, mitigate, respond to and recover from threats and acts of terrorism and other man-made or natural catastrophes. It requires a risk management process in order to ensure the region has the right capabilities in place to manage those hazards that pose the greatest risk to the Bay Area, its people, and its critical infrastructure and key resources. The threat of catastrophic events, both natural and man-made, requires continuous attention and strategic commitment from all levels of government, the private sector and the general public. The Bay Area is committed to this effort.

The Urban Areas Security Initiative (UASI) program provides financial assistance to address the unique multi-discipline planning, organization, equipment, training, and exercise needs of high-threat, high-density urban areas, and assists those urban areas with supplemental funding to build and sustain capabilities to prevent, protect against, mitigate, respond to, and recover from threats or acts of terrorism and other major hazards. Working together, the entire Bay Area UASI has strived to integrate preparedness activities, especially preparedness planning at the strategic level. This homeland security strategy represents the latest effort in that regard.

Purpose

The purpose of the *Bay Area Homeland Security Strategy* ("*Bay Area Strategy*" or "*Strategy*") is to ensure the Bay Area region has a comprehensive document and system that outlines the region's risks, capabilities, vision, structure, goals and objectives for homeland security. Having such a *Strategy* will ensure the Bay Area is in the best possible position to clearly track and articulate its risk and capability needs to local leaders, the State of California and the U.S. Department of Homeland Security (DHS) when seeking resources and funding to enhance homeland security and public safety across the region.

The *Strategy* is designed primarily to address terrorism risk faced by the Bay Area with an understanding that capabilities enhanced to combat terrorism often enhance the ability to also manage natural disasters, such as earthquakes, and man-made accidents, such as hazardous materials spills. The *Strategy* outlines a comprehensive system for enhancing regional capability and capacity that will guide the Bay Area's efforts to:

- Prevent and disrupt terrorist attacks;
- Protect the people of the Bay Area, its critical infrastructure and key resources;
- Mitigate the damage caused by acts of terrorism, natural disasters and man-made accidents;
- Respond to and recover from major incidents that do occur;
- Continue to strengthen our preparedness foundation to ensure our long-term success; and
- Guide future investments, increase capabilities and reduce risk.

Finally, the *Strategy* does not alter the statutory or regulatory authority or responsibility of any agency in the Bay Area related to public safety, health, and security. Nor does the *Strategy* impose any affirmative duty for any jurisdiction or entity to take any action or inaction concerning public health, safety, or security. Rather, the *Strategy* is designed as an integration tool and guide to better coordinate and focus those often disparate authorities and resources spread across the region necessary to achieve homeland security.

Vision

The Bay Area's vision for homeland security is a secure, prepared and resilient region consistently developing regional capabilities based on an analysis of risk through collaboration and coordination.

Jurisdiction Description

The current Bay Area UASI region is comprised of twelve counties (Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Santa Cruz, Solano, Sonoma, Monterey and San Benito) and the three major cities of Oakland, San Francisco, and San Jose.¹ In 2005, prior to the DHS led consolidation, this group initiated regional planning and collaboration efforts by developing the Regional Emergency Coordination Plan (RECP).

The Bay Area UASI is 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 areas in California.

Urban Area Structure

The Bay Area UASI is managed through a three-tiered governance structure. The top tier is the eleven-member Approval Authority that includes representation from each of the three major cities of Oakland, San Francisco, and San Jose and the County of Alameda, County of Contra Costa, County of Marin, County of Monterey, County of San Francisco, County of San Mateo, County of Santa Clara and County of Sonoma. An appointee from the Secretary of the California Emergency Management Agency is also a non-voting member. The Approval Authority provides policy direction to the program and is responsible for final decisions.

The eleven-member Approval Authority works collaboratively with an Advisory Group which acts as the second tier of the governance structure. Advisory Group members include one representative each from the twelve Bay Area county operational areas, the three major cities, the regional NCRIC and an appointee from the Secretary of CalEMA. The Advisory Group makes

¹The California Emergency Management Agency (CalEMA) divides the state's 58 counties into 3 administrative regions: Coastal, Inland, and Southern. The Bay Area UASI is part of the Coastal Region which includes: law, fire, coroners/medical examiners, emergency medical, and search and rescue mutual aid systems.

policy and programmatic recommendations to the Approval Authority and ensures there is broad representation, input and participation in the regional planning process.

Managing the day-to-day work of the Bay Area UASI is a Management Team comprised of a general manager, an assistant general manager, project managers, a chief financial officer, and finance and grants staff. The City and County of San Francisco has been designated as the fiscal agent for the grants managed by the Bay Area UASI.

Strategy Development Process

Through a series of meetings and other planning activities within the region, the *Strategy* and its goals and objectives as well as various ideas and recommendations were developed. The planning process used to develop the *Strategy* is outlined below. This process included a regional risk assessment, a capabilities assessment, and a gap analysis. From that data, strategic goals and objectives were updated along with implementation steps. The implementation steps involve a series of resource elements divided among the elements of capability: plans, organization, equipment, training and exercises (POETE) needed to achieve the objective as outlined in the figure below.





In 2008, the Bay Area UASI produced five major planning guidance documents: an assessment and strategic plan for regional interoperable communications; an assessment and project plan for community preparedness; a gap analysis and multi-year training and exercise program for EMS, the fire service and law enforcement; a training and exercise mandate for search and rescue; and a chemical, biological, radiological, nuclear, and/or explosive (CBRNE) assessment and strategic plan. In 2011 the region produced several region-wide response and recovery plans focusing on catastrophic disaster management. This was followed by a regional assessment and strategic plan for public information and warning. The plans from 2011 and 2012 cover:

- Mass Care and Sheltering
- Interim Housing
- Mass Fatality Management
- Donations Management
- Debris Removal
- Mass Transportation
- Volunteer Management
- Emergency Public Information and Warning

All of these plans and strategies have been reviewed and relevant key elements have been integrated into this overall regional *Bay Area Homeland Security Strategy*.

State and National Goals

The *Strategy* is built on the premise that achieving homeland security is an ongoing mission and one that must be a shared responsibility across the entire region, state and nation. This includes our local, tribal, state, and federal agencies, international partners, community organizations, businesses and individuals. Therefore, the *Strategy* supports implementation of the State of California Homeland Security Strategy and the National Security Strategy. Indeed, this *Strategy* serves as the Bay Area's focal point for implementing not only local and regional homeland security policy at the local and regional level.

Bay Area Risk Overview

Mitigating risk plays a vital role in the region's homeland security efforts. Risk 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. The Bay Area calculates risk as a function of threat, vulnerability, and consequence: **Risk = Threat x Vulnerability x Consequence.** The Bay Area's risk environment is a complex one involving terrorism, crime, natural hazards and industrial and other accidents concerning its people, and critical infrastructure and key resources (CIKR).

In addition to its large population, there are approximately 8,500 CIKR 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, Google, Intel, Adobe, Hewlett-Packard, the San Francisco Bay Area Rapid Transit District, 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, including from the National Football League, National Hockey League, National Basketball Association and Major League Baseball. 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 Ames Center, the San Francisco Mint, the Defense Language Institute, and the Naval Postgraduate School.

The terrorism scenarios and natural hazards that pose the greatest risk to the Bay Area's CIKR are listed below in rank order:

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

From a terrorism perspective, the Bay Area's CIKR is particularly at risk from vehicle borne improvised explosive devices (VBIED), e.g., car or truck bombings against critical infrastructure. The relatively high likelihood of a VBIED attack in the Bay Area is driven by the ease and low expense of carrying out such an attack. Such a method of attack is common around the world. When combined with a conventional IED attack, over 50% of the calculated risk to the region's CIKR comes from terrorists' use of explosives. In addition to IEDs, general aviation aircraft as a weapon poses a risk given the number of general aviation airports in the region and the lower security standards imposed on general aviation as compared to commercial aviation.

The Bay Area also faces risk from natural hazards, especially floods, earthquakes and wildfires. The region rests upon one of the longest and most active earthquake fault systems in the world. This system includes the San Andreas Fault, the Hayward Fault and the Calaveras Fault. The U.S. Geological Survey estimates an 80% chance of a magnitude 6.7 or greater quake striking the Bay Area within the next 30 years. Based on the Bay Area's topography, risk from wild land fires as well as tsunamis are also of major concern.

A breakdown of the top ten CIKR sectors in the Bay Area based on the number of assets and risk to each sector (both from terrorism and natural hazards) is set forth in the table below.

| Bay Area Sector Rankings | | | |
|--------------------------|-----------------------------------|-------------------------------------|---|
| Rank | Sectors Ranked by Total Assets | Sectors Ranked by Terrorism Risk | Sectors Ranked by Natural Hazards Risk |
| 1 | Government | Government | Government |
| 2 | Commercial | Transportation | Commercial |
| 3 | Transportation | Banking | Water |
| 4 | Emergency Services | Commercial | Health |
| 5 | Postal | Health | Transportation |
| 6 | Dams | Defense Industrial Base | Emergency Services |
| 7 | Health | Monuments and Icons | Energy |
| 8 | Banking | Energy | Communications |
| 9 | Water | Water | Chemical |
| 10 | Food and Agriculture | Communications | Banking |

Bay Area Sector Rankings

The NCRIC has further refined all of the region's assets into four priority levels (Level I being the highest and Level IV being the lowest priority) with the vast majority of the assets (over 6,300) falling within priority Level IV. Just 2% of all NCRIC identified assets fall into Level I. Such a breakdown reflects the region's goal of accounting for as many assets as possible while recognizing that a smaller subset of those assets, if attacked or otherwise incapacitated, could have a devastating impact on the region.

Capabilities Assessment

Upon updating its risk profile, the Bay Area identified those capabilities that were most needed to address the highest-risk acts of terrorism faced by the region i.e., how vital each capability is to preventing, protecting against, mitigating, responding to and recovering from acts of terrorism that pose a risk to the region. While the assessment was driven by terrorism risk, most, if not all of the capabilities involved in the assessment can be used to address natural hazards as well. This "dual use" concept is one the Bay Area has used for years and will continue to use to help drive investments and strategic planning across the region.

After classifying capabilities according to their terrorism risk relevance, a capabilities assessment and gap analysis were conducted. The capabilities assessment was held in September 2012 and for the first time involved DHS's 31 Core Capabilities from the 2011 National Preparedness Goal. The use of the Core Capabilities replaces the Target Capabilities List (TCL). The Bay Area had used the TCL for assessments in 2009, 2010 and 2011. During the 2012 assessment, capability levels were organized into four quartiles: low, medium low, medium high and high.

Upon completing the capabilities assessment, the Core Capabilities were then plotted by terrorism risk relevance and capability gap depending on each capabilities risk relevance and the size of the gap in the capability. The Core Capabilities with the largest capability gap and highest risk relevance were ranked highest. The full findings from the 2012 Core Capabilities assessment, including current levels of ability and capability gaps, for the Bay Area are set forth in the table below.

| Kisk and GapCopabilityRelevance RelevanceLevel of AbilityGap Analysis1Infrastructure Systems2LowNeeds Extra Attention2Long Term Vulnerability Reduction5LowNeeds Extra Attention3Community Resilience6LowNeeds Extra Attention4Forensics and Attribution11LowNeeds Extra Attention5Interdiction and Disruption9Medium LowNeeds Attention6Public Information and Warning12Medium LowNeeds Attention7Screening, Search and Detection14Medium LowNeeds Attention8Situational Assessment1Medium HighAdequate9Threat and Hazard Identification3Medium HighAdequate11Risk Management for Protection Programs/Activities7Medium HighAdequate13Intelligence and Info Sharing10HighAdequate14Planning13Medium HighAdequate15Access Control and Identity Verification17LowNeeds Attention16Cyber Security20LowNeeds Attention17Fatality Management21LowNeeds Attention18Operational Coordination15Medium HighAdequate19Operational Coordination15Medium LowNeeds Attention18Operational Coordination15Medium LowNeeds Attention <th colspan="4">2012 Core Capability Assessment Findings</th> | 2012 Core Capability Assessment Findings | | | | | |
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2012 Core Capability Assessment Findings

Summary of Goals and Objectives

After completing the risk and capabilities assessments, the region used the information to update the goals, objectives and implementation steps in the *Strategy*. Each of the *Strategy's* goals seeks to align whenever possible with either a National or State Homeland Security Priority. The eight DHS National Homeland Security Priorities represent broad and thematic goals that the nation should strive to achieve. They include Strengthen Information Sharing and Collaboration Capabilities, Strengthen Interoperable and Operable Communications Capabilities, etc. Each objective aligns with a capability or set of capabilities from the Core Capabilities², and the Centers for Disease Control and Prevention's (CDC's) Public Health Preparedness Capabilities for medical and health related objectives. Each objective describes the desired capability end state the region will strive to achieve.

The purpose of aligning each objective to a capability is to ensure the *Strategy* drives investments centered on enhancing specifically defined capabilities needed to better secure and protect the Bay Area from those acts of terrorism and other major hazards that pose the greatest risk to the region. In the end, the Bay Area's ability to prevent acts of terrorism or respond effectively to major natural disasters, such as a catastrophic earthquake, will be determined by the region having sufficient capabilities in place to deal with incidents caused by those threats and hazards. The *Strategy*'s goals, objectives and implementation steps outline in detail what the Bay Area needs to do to make sure it achieves and sustains those capabilities.

The goals and objectives are directed towards the next three years and may be reviewed and updated annually or as needed. It is likely that some of the objectives will carry over from year to year while others may be removed or updated based on the region's progress and actual needs. The goals and objectives will continue to be defined by risk analysis, identified preparedness gaps and sustainment priorities. A summary of the Bay Area's 8 goals and 31 objectives is set forth below.

² In certain cases an objective may reference both a Core Capability and a Target Capability, e.g., Objective 4.1 Improve Public and Private Services and Resources Management through *Fire Incident Response Support*. (Target Capability is in italics). This is due to the fact that certain Core Capabilities are ambiguous in their terms and require added definition, which the Target Capabilities provide, and/or the Core Capabilities are inclusive of multiple capabilities that were formally divided among the Target Capabilities List and that division is still necessary for planning purposes in the Bay Area, e.g., Objective 4.5 Improve Public and Private Services and Resources Management through *Critical Resource Logistics*. This breaking up of certain Core Capabilities along the Target Capability taxonomy reflects the reality of how the Bay Area plans and invests in these Core Capabilities.

Goal 1 Strengthen the Regional Risk Management and Planning Program

Objective 1.1 Enhance Planning, Threat and Hazard Identification, and Risk Management Capabilities: The Bay Area is able to identify and assess the threats and hazards that pose the greatest risk to the whole community. The region can prioritize and select appropriate capability-based planning investments and solutions for prevention, protection, mitigation, response, and recovery concerning those risks; monitor the outcomes of allocation decisions; and undertake corrective and sustainment actions.

Goal 2 Enhance Information Analysis and Infrastructure Protection Capabilities

Objective 2.1 Enhance Intelligence Collection, Analysis and Sharing: The Bay Area has systems and procedures to effectively collect, analyze and timely share information and intelligence across federal, state, local, tribal, territorial, regional, and private sector entities 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. This involves sustaining and building upon the region's intelligence fusion center to include the ability to identify and systematically report suspicious activities associated with potential terrorist or criminal pre-operational planning and logistics.

Objective 2.2 Strengthen Terrorism Attribution, Interdiction and Disruption Capabilities: The Bay Area's law enforcement community (federal, state and local) and other public safety agencies can conduct forensic analysis and attribute terrorist threats and acts to help ensure that suspects involved in terrorist and criminal activities related to homeland security are successfully identified, deterred, detected, disrupted, investigated, and apprehended.

Objective 2.3 Increase Critical Infrastructure Protection: The Bay Area can assess the risk to the region's physical and cyber critical infrastructure and key resources from acts of terrorism, crime, and natural hazards and deploy a suite of actions to enhance protection and reduce the risk to the region's critical infrastructure and key resources from all hazards. This includes a risk-assessment process and tools for identifying, assessing, cataloging, and prioritizing physical and cyber assets from across the region.

Goal 3 Strengthen Communications Capabilities

Objective 3.1 Enhance Operational Communications Capabilities: The emergency response community in the Bay Area has 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. The Bay Area can also re-establish sufficient communications infrastructure within the affected areas of an incident, whatever the cause, to support ongoing life-sustaining activities, provide basic human needs, and transition to recovery.

Goal 4 Strengthen CBRNE Detection, Response, and Decontamination Capabilities

Objective 4.1 Improve Public and Private Services and Resources Management through Fire Incident Response Support: Fire service agencies across the Bay Area can dispatch initial fire suppression resources within jurisdictional response time objectives, and firefighting activities are conducted safely with fire hazards contained, controlled, extinguished, and investigated, with the incident managed in accordance with local and state response plans and procedures.

Objective 4.2 Strengthen Mass Search and Rescue Capabilities: Public safety personnel in the Bay Area are able to conduct search and rescue operations to locate and rescue persons in distress and initiate community-based search and rescue support-operations across a geographically dispersed area. The region is able to synchronize the deployment of local, regional, national, and international teams to support search and rescue efforts and transition to recovery.

Objective 4.3 Enhance Screening Search and Detection Capabilities: The Bay Area has systems and procedures to rapidly detect, locate and identify CBRNE materials at ports of entry, critical infrastructure locations, public events, and incidents, and can communicate CBRNE detection, identification and warning information to appropriate entities and authorities across the state and at the federal level.

Objective 4.4 Strengthen On-Scene Security and Protection through Explosive Device Response Operations: Public safety bomb squads in the Bay Area are able to conduct threat assessments; render safe explosives and/or hazardous devices; and clear an area of explosive hazards in a safe, timely, and effective manner. This involves the following steps in priority order: ensure public safety; safeguard the officers on the scene (including the bomb technician); collect and preserve evidence; protect and preserve public and private property; and restore public services.

Objective 4.5 Improve Public and Private Services and Resources Management through Critical Resource Logistics: The Bay Area has a system to track and manage critical resources and make them appropriately available to incident managers and emergency responders from across the Bay Area to enhance emergency response operations and aid disaster victims in a cost-effective and timely manner.

Objective 4.6 Enhance Environmental Response/Health and Safety through WMD/HazMat Response and Decontamination Capabilities: Responders in the Bay Area are able to conduct health and safety hazard assessments and disseminate guidance and resources, including deploying HazMat response and decontamination teams, to support immediate environmental health and safety operations in the affected area(s) following a WMD or HazMat incident. Responders are also able to assess, monitor, clean up, and provide resources necessary to transition from immediate response to sustained response and short-term recovery.

Objective 4.7 Strengthen Operational Coordination Capabilities: The Bay Area has a fully integrated response system through a common framework of the Standardized Emergency Management System, Incident Command System and Unified Command including the use of emergency operations centers (EOCs), incident command posts, emergency plans and standard operating procedures, incident action plans and the tracking of on-site resources in order to manage major incidents safely, effectively and efficiently. EOCs in the Bay Area can

effectively plan, direct and coordinate information and activities internally within EOC functions, and externally with other multi-agency coordination entities, command posts and other agencies to effectively coordinate disaster response operations.

Objective 4.8 Improve Environmental Response/Health and Safety through Responder Safety and Health: The Bay Area can reduce the risk of illnesses or injury to first responders, first receivers, medical facility staff members, 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.

Objective 4.9 Enhance On-Scene Security and Protection through Emergency Public Safety and Security Response: Public safety agencies within the Bay Area are 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 and Public Health Preparedness

Objective 5.1 Enhance Emergency Triage and Pre-Hospital Treatment: Emergency medical services (EMS) resources across the Bay Area can effectively and appropriately be dispatched (including with law enforcement tactical teams) 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.

Objective 5.2 Increase Medical Surge: The Bay Area is able to provide adequate medical evaluation and care during incidents that exceed the limits of the normal medical infrastructure of an affected community or the region. The healthcare system in the region is able to survive a hazard impact and maintain or rapidly recover operations that were compromised. Those injured or ill from a medical disaster and/or mass casualty event in the Bay Area are rapidly and appropriately cared for. Continuity of care is maintained for non-incident related illness or injury.

Objective 5.3 Strengthen Medical Countermeasure Dispensing: With the onset of an incident, the Bay Area is able to provide appropriate medical countermeasures (including vaccines, antiviral drugs, antibiotics, antitoxin, etc.) in support of treatment or prophylaxis (oral or vaccination) to the identified population in accordance with local, state and federal public health guidelines and/or recommendations.

Objective 5.4 Improve Medical Materiel Management and Distribution: The Bay Area is able to acquire, maintain (e.g., cold chain storage or other storage protocol), transport, distribute, and track medical materiel (e.g., pharmaceuticals, gloves, masks, and ventilators) during an incident and recover and account for unused medical materiel, as necessary, after an incident.

Objective 5.5 Strengthen Non-Pharmaceutical Interventions: Public health agencies in the Bay Area are able to recommend to the applicable lead agency (if not public health) and implement, if applicable, strategies for disease, injury, and exposure control. Strategies include the following: isolation and quarantine, restrictions on movement and travel advisory/warnings, social distancing, external decontamination, hygiene, and precautionary protective behaviors. Legal authority for those applicable measures is clearly defined and communicated to all responding agencies and the public. Logistical support is provided to

maintain measures until danger of contagion has elapsed.

Objective 5.6 Improve Laboratory Testing: Laboratories in the Bay Area are able to conduct rapid and conventional detection, characterization, confirmatory testing, data reporting, investigative support, and laboratory networking to address actual or potential exposure to all-hazards. Confirmed cases and laboratory results are reported immediately to all relevant public health, food regulatory, environmental regulatory, and law enforcement agencies in support of operations and investigations.

Objective 5.7 Strengthen Public Health Surveillance and Epidemiological Investigation: Bay Area public health agencies have the ability to create, maintain, support, and strengthen routine surveillance and detection systems and epidemiological investigation processes, as well as to expand these systems and processes in response to incidents of public health significance. This includes the ability to identify potential exposure to disease, mode of transmission, and agent.

Objective 5.8 Enhance Fatality Management: Bay Area agencies, e.g., law enforcement, public health, healthcare, emergency management, and medical examiner/coroner) are able to coordinate (to ensure the proper recovery, handling, identification, transportation, tracking, storage, and disposal of human remains and personal effects; certify cause of death; and facilitate access to mental/ behavioral health services to the family members, responders, and survivors of an incident.

Goal 6 Strengthen Emergency Planning and Citizen Preparedness Capabilities

Objective 6.1 Strengthen Emergency Public Information and Warning Capabilities: The Bay Area has an interoperable and standards-based system of multiple emergency public information and warning systems that allows Bay Area leaders and public health and safety personnel to disseminate prompt, clear, specific, accurate, and actionable emergency public information and warnings to all affected members of the community in order to save lives and property concerning known threats or hazards.

Objective 6.2 Enhance Critical Transportation Capabilities: The Bay Area can provide transportation (including infrastructure access and accessible transportation services) for response priority objectives, including the evacuation of people, including those with access and functional needs, and animals, and the delivery of vital response personnel, equipment, and services into the affected incident areas to save lives and to meet the needs of disaster survivors.

Objective 6.3 Improve Mass Care: Mass care services, including sheltering, feeding, and bulk distribution, are rapidly, effectively and efficiently provided for the impacted population, including those with access and functional needs, in a manner consistent with all applicable laws, regulations and guidelines.

Objective 6.4 Increase Community Resiliency: The Bay Area has 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 known threats and hazards.

Objective 6.5 Strengthen Public and Private Services and Resources Management through Volunteer Management and Donations: Volunteers and donations within the Bay Area are organized and managed throughout an emergency based upon pre-designated plans,

procedures and systems.

Goal 7 Enhance Recovery Capabilities

Objective 7.1 Strengthen Infrastructure Systems: The Bay Area can 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 preincident conditions as quickly as possible. The Bay Area can coordinate activities between critical 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 to support ongoing emergency response operations, life sustainment, community functionality, and a transition to recovery

Objective 7.2 Enable Economic Recovery: During and following an incident, the Bay Area can estimate economic impact, prioritize recovery activities, minimize business disruption, and provide individuals and families with appropriate levels and types of relief with minimal delay.

Objective 7.3 Improve Environmental Response/Health and Safety: After the primary incident, the Bay Area is able to assess, monitor, perform cleanup actions, including debris and hazardous waste removal, and provide resources to prevent disease and injury through the quick identification of associated environmental hazards.

Goal 8 Enhance Homeland Security Exercise, Evaluation and Training Programs

8.1 Strengthen the Regional Exercise and Evaluation Program: The Bay Area exercise program tests and evaluates 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.

8.2 Enhance the Regional Training Program: The Bay Area has a multi-discipline, multijurisdictional risk and capabilities based training program that enhances and sustains priority capabilities in order to mitigate the region's most pressing risks.

Strategy Implementation

The Bay Area UASI Management Team will have overall responsibility for managing and tracking implementation of the *Strategy* with oversight from the Bay Area UASI Approval Authority and input from the region's other stakeholders. Implementation will occur through major annual investments and projects developed at the city, county/operational area, sub-regional and regional level.

The Bay Area's strategic approach to investing will be premised on two overarching principles:

- First, sustain current priority programs and capabilities in the region.
- Second, close gaps in capabilities with an emphasis on those capabilities that have the highest risk relevance and the largest capability gaps.

The Management Team is responsible for developing the region's annual planning and investment guidance, which outlines the details for planning structures and priorities to ensure the Bay Area is executing the strategy through investments. These details actualize the two guiding investment principles outlined above. It includes planning timelines, grant guidance, project templates and such other materials and policies as may be necessary to ensure a seamless and integrated planning structure and system for each year.

Evaluation of the Strategy

In order to truly understand the value of the Bay Area's homeland security investments, the region must have a consistent mechanism by which to measure the effectiveness of the homeland security activities generated (i.e., what plans were developed, personnel hired, organization and operations conducted, equipment purchased, number of people trained, and exercises conducted, etc.) by those investments. This will be done in the form of an effectiveness report to the Approval Authority, which may be shared with state and federal partners as needed.³ Through its goals and objectives, the *Strategy* outlines the region's approach and path forward for homeland security. The effectiveness report outlines the region's progress in achieving those goals and objectives based on enhancing capabilities tied to risk management.

 $^{^{3}}$ In 2011, the Bay Area produced a preliminary UASI effectiveness report, which examined certain UASI investments to determine if the region had been following its strategic plans over the years and investing in priority, risk based capabilities. A more extensive follow-on report was issued in November 2012. The overall findings from both the 2011 and the 2012 report show that the region has been investing according to its plans and that priority capabilities have been enhanced to help reduce risk.

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SECTION 1 INTRODUCTION

1.1 Background

Homeland Security is the coordinated effort to ensure a region, state or nation is prepared to prevent, protect against, respond to and recover from threats and acts of terrorism and other manmade or natural catastrophes. It requires a risk management process in order to ensure the right capabilities are in place to manage those hazards that pose the greatest risk to the region, its people, and its critical infrastructure and key resources. The threat of catastrophic events, both natural and man-made, requires continuous attention and strategic commitment from all levels of government, the private sector and the general public.

The Northern California Bay Area is a major target of terrorist organizations and a region with an extensive history of natural disasters. To better address these risks on a regional basis, in 2006, the U.S. Department of Homeland Security (DHS) combined three previously independent Urban Areas (Oakland, San Francisco, and San Jose) under the DHS Urban Area Security Initiative grant program and formed the Northern California Bay Area Urban Areas Security Initiative (Bay Area UASI) region for preparedness purposes.

The combining of the three previously independent Urban Areas prompted them to review their existing governance structures. As a result, the Bay Area UASI established a new three-tiered governance structure, which included the major cities of Oakland, San Francisco, and San Jose, the twelve county operational areas, and the State of California Emergency Management Agency. This governance structure is designed to ensure integration and coordination among the diverse members of the region as each works to collectively enhance the region's preparedness and security.

The Bay Area UASI is committed to the homeland security effort. Working together, the entire Bay Area UASI has strived to integrate preparedness activities, especially preparedness planning at the strategic level. This homeland security strategy represents the latest effort in that regard. The Bay Area UASI is a recognized leader in homeland security and has made great strides in improving preparedness and security while maintaining our standards of freedom and civil liberties. The region will build on its accomplishments, but must remain vigilant and continue to meet the challenges going forward.

1.2 Bay Area Overview

The Bay Area is 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. 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.

From the beginning of the UASI program in 2003, the geographic foot print of DHS- designated UASI jurisdictions has been a combination of DHS determined risk analysis and existing state, local and regional compacts. The formula used by DHS has changed almost yearly, along with the number of eligible jurisdictions, with one of the most dramatic shifts occurring in 2006. That year, DHS combined the three previously independent UASI jurisdictions of Oakland, San Francisco, and San Jose into the current Bay Area UASI.

The current Bay Area UASI region is comprised of twelve counties (Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Santa Cruz, Solano, Sonoma, Monterey and San Benito) and the three major cities of Oakland, San Francisco, and San Jose. In 2005, prior to the DHS led consolidation, this group initiated regional planning and collaboration efforts by developing the Regional Emergency Coordination Plan (RECP). A map of the current Bay Area UASI is set forth in Figure 1.

2008 marked another major shift in how DHS calculates risk and determines UASI funding eligibility. That year, per the 9/11 Act passed by Congress, DHS began a new evaluation process that utilized the U.S. Census-determined Metropolitan Statistical Areas (MSA) to determine eligibility and rank those UASI jurisdictions eligible for funding. In using this approach, jurisdictions within the MSA are included in the DHS risk analysis, but are not

Figure 1: Bay Area UASI Region



necessarily included in the actual UASI region's geographic footprint for funding. In the case of the Bay Area UASI, the region's twelve county geographic foot print is actually <u>larger</u> than the MSA region used by DHS to calculate risk. This is rare. The Bay Area UASI includes Santa Cruz, Sonoma, Solano, Monterey and San Benito counties, which are not part of the MSA used by DHS to calculate risk and then rank and fund the Bay Area under the UASI program.

1.3 Bay Area Management

The Bay Area homeland security program is comprised of the UASI grant program, COPS Technology Grant, Interoperable Emergency Communications Grant Program (IECGP), Regional Catastrophic Preparedness Grant Program (RCPGP), and the Public Safety Interoperable Communications (PSIC) grant program. These grants serve as both terrorism and all hazards preparedness programs. Thus, this Strategy is focused on all hazards with a particular emphasis on terrorism preparedness.

Governed by a multi-year Memorandum of Understanding (MOU) between the participants, the Bay Area UASI is managed through a three-tiered governance structure. The Bay Area's governance structure is widely viewed as having an important, groundbreaking regional approach that has been recognized, and may be replicated, throughout the State of California and across the country as a homeland security best practice.

1.3.1 Approval Authority

The top tier is the eleven-member Approval Authority that includes representation from each of the three major cities of Oakland, San Francisco, and San Jose and the County of Alameda, County of Contra Costa, County of Marin, County of Monterey, County of San Francisco, County of San Mateo, County of Santa Clara and County of Sonoma. An Appointee from the Secretary of the California Emergency Management Agency (CalEMA) is also a non-voting member. The Approval Authority provides policy direction to the program and is responsible for final decisions.

1.3.2 Advisory Committee

The eleven-member Approval Authority works collaboratively with an Advisory Group which acts as the second tier of the governance structure. Advisory Group members include one representative each from the twelve Bay Area county operational areas, the three major cities, the regional NCRIC and an appointee from the Secretary of CalEMA. The Advisory Group makes policy and programmatic recommendations to the Approval Authority and ensures there is broad representation, input and participation in the regional planning process.

1.3.3 Management Team

Managing the day-to-day work of the Bay Area UASI is a Management Team comprised of a general manager, strategy and compliance director, several project managers, a finance manager, and grants managers. The City and County of San Francisco has been designated as the fiscal agent for the grants managed by the Bay Area.

1.3.4 Planning Hubs and Work Groups

The Bay Area also engages a variety of stakeholders throughout the region to move projects and initiatives forward and to provide essential input for decision makers of the Bay Area's homeland security efforts. Planning hubs are organized sub-regionally – North, South, East and West Bay hubs. Working groups generally organize themselves around the Strategy's goals and objectives. For example, the CBRNE Work Group manages issues related to the CBRNE goal (Goal 4 - Strengthen CBRNE Detection, Response, and Decontamination Capabilities). Work group members represent diverse interests and areas of expertise at the local, regional and state level. Each work group meets on an as needed basis to address identified projects and issues.

SECTION 2 PURPOSE

2.1 Purpose Overview

The purpose of the *Bay Area Homeland Security Strategy* is to ensure the Bay Area has a comprehensive, data driven document that outlines the Bay Area's risks, capabilities, vision, structure, goals and objectives for homeland security. Having such a document will ensure the Bay Area is in the best possible position to clearly track and articulate its risk and capability needs to local leaders, the State of California and DHS when seeking resources to reduce that risk and satisfy those capability needs. The *Strategy* is designed primarily to address terrorism risk with an understanding that capabilities enhanced to combat terrorism often enhance the ability to also manage natural disasters and man-made accidents.

The *Strategy* outlines a comprehensive system for enhancing regional capability and capacity that will guide the Bay Area UASI's efforts to:

- Prevent and disrupt terrorist attacks;
- Protect the people of the Bay Area, its critical infrastructure and key resources;
- Mitigate the damage caused by acts of terrorism, natural disasters and man-made accidents;
- Respond to and recover from major incidents and all hazards that do occur;
- Continue to strengthen our preparedness foundation to ensure our long-term success; and
- Guide future investments, increase capabilities and reduce risk.

This is an exceedingly complex mission requiring coordination, cooperation, collaboration, and focused effort from the entire region – residents, government, as well as the private and non-governmental organization sectors. The Bay Area region will apply the resources available from DHS to address unique planning, organizational, equipment, training, and exercise needs to assist in building an enhanced and sustainable capacity to prepare for all hazards. However, this *Strategy* is not a grant strategy; it is a comprehensive homeland security strategy that will be implemented through projects funded by Federal grants, general funds and such other funding opportunities that may become available.

2.2 Prior and Ongoing Planning Efforts

Prior to the 2006 consolidation of the three previously independent Urban Areas, the initial homeland security strategies were developed based upon the September 2003 regional assessments. That process included comprehensive risk, capabilities, and needs assessments. The results of the assessments provided an early insight into the requirements of each of the three Urban Areas at the time. The three strategies were revised in 2005 to align with the homeland security mission areas of prevention, protection, response and recovery, and the Target Capabilities List to enable the region to more effectively embrace the capabilities based planning process. Later, a regional strategy was developed in accordance with the consolidation of 2006. The 2006 Strategy was followed by a new 2010 Bay Area regional homeland security strategy

based upon a region-wide risk and capabilities assessment conducted in late 2009. The 2010 Bay Area Strategy served as a baseline for this current *2013 Bay Area Homeland Security Strategy*.

In the past, the Bay Area region has conducted assessments and developed several strategic, operational and tactical level plans that have produced valuable data to help drive the region's policies and programs. Those assessments and strategies (and future assessments and strategies) serve two purposes concerning this Strategy: first, they provide valuable data and strategic input into this regional Strategy; and second, they serve as implementation plans, policies and procedures under the umbrella of this larger region-wide *Bay Area Homeland Security Strategy*. Appendix A outlines this interrelated planning structure.

In 2008, the Bay Area UASI produced five major planning guidance documents: an assessment and strategic plan for regional interoperable communications; an assessment and project plan for community preparedness; a gap analysis and multi-year training and exercise program for EMS, the fire service and law enforcement; a training and exercise mandate for search and rescue; and a CBRNE assessment and strategic plan. In 2011, the region produced several region-wide response and recovery plans focusing on catastrophic disaster management. This was followed by a 2012 regional strategic plan for public information and warning. The plans from both years cover:

- Mass Care and Sheltering
- Interim Housing
- Mass Fatality Management
- Donations Management
- Debris Removal
- Mass Transportation
- Volunteer Management
- Emergency Public Information and Warning

All of these plans and strategies from 2008 and beyond have been reviewed and relevant key elements have been integrated into this overall regional *Bay Area Homeland Security Strategy*.

Finally, the homeland security planning and implementation process has no "end state" any more than traditional public safety has an end point. Rather, it is a constant cycle of improving plans, procedures, systems and operations designed to enhance security and preparedness for the region. The Bay Area is committed to this process and the current *Bay Area Homeland Security Strategy* is the latest product in that endeavor.

SECTION 3 VISION

The Bay Area's vision for homeland security is a secure, prepared and resilient region consistently developing regional capabilities based on risk through collaboration and coordination.

The Bay Area's vision will be implemented through a set of guiding principles that will help shape this regional *Strategy* and its implementation and maintenance. These principles are:

- Homeland security is a shared responsibility among all regional members at all levels of government and the private sector.
- Local jurisdictions and sub-regions are in the best position to know how to achieve regional goals and objectives.
- Each individual jurisdiction and the region as a whole will be best able to implement its vision for homeland security through regional collaboration and cooperation.
- The region will strive to use empirical data to drive its homeland security programs to include risk and capabilities assessment data.
- Every individual and family across the region has a critical role to play in homeland security from preparing for disasters to helping deter and detect terrorist plots.
- The region will strive to develop and share best practices in homeland security across the region and the State of California and recognizes that such best practices are often first developed at the local level.
- The region will responsibly leverage and manage funds to achieve the optimal result with the dollars available. This will include, wherever possible, the integration of State Homeland Security Program grants and UASI grants among others.

SECTION 4 FOCUS & MISSION

4.1 Focus and Mission Overview

To accomplish the Bay Area's vision for homeland security, this Strategy and its goals and objectives are focused and organized around managing **major/regional** threats and hazards through the five⁴ mission areas of homeland security: prevention, protection, mitigation, response and recovery. Certain programs cross all mission areas; these are listed in this document under the category "common." The Strategy also reflects that day-to-day public safety policy development and implementation is the responsibility of local jurisdictions, while at the same time recognizing that such local capabilities are essential to building regional capacity for which this Strategy is designed. Each strategic goal and objective under this Strategy will be based upon and built to help the region achieve one or more of these mission areas. The five mission areas are broken down as follows:

4.1.1 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.

4.1.2 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 sectorspecific protection practices and methodologies; and information sharing among private entities within the sector, as well as between government and private entities.

⁴ When the mission areas were first developed the mitigation mission area was not formally recognized. In 2011, PPD-8 formally adopted mitigation as a homeland security mission area. Thus, up until 2011, there were only four mission areas plus the common mission area. This change is most relevant when dealing with the Target Capabilities List, which is aligned to the four mission areas, plus common, and the new Core Capabilities List, which is aligned to the five mission areas plus common, each of which is discussed in sections 4.3 and 4.4 respectively.

4.1.3 Mitigation

Mitigation involves efforts to reduce loss of life and property by lessening the impact of disasters. Mitigation is achieved through risk analysis, which results in information that provides a foundation for mitigation activities that reduce risk. Mitigation includes ongoing public education and outreach activities designed to reduce loss of life and destruction of property; complying with or exceeding floodplain management and land-use regulations; enforcing stringent building codes, seismic design standards, and wind-bracing requirements for new construction, repairs, or retrofitting of existing buildings.

4.1.4 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.

4.1.5 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, political, environmental, and economic restoration.

4.2 The National Priorities

The National Homeland Security Priorities represent broad and thematic goals that fall under the mission areas that the Nation should strive to achieve in homeland security. The National Homeland Security Priorities are:

- Implement the National Incident Management System and National Response Framework
- Implement the National Infrastructure Protection Plan
- Expand Regional Collaboration
- Strengthen Information Sharing and Collaboration Capabilities
- Strengthen CBRNE Detection, Response and Decontamination Capabilities
- Strengthen Interoperable and Operable Communications Capabilities
- Strengthen Planning and Citizen Preparedness
- Strengthen Medical Surge and Mass Prophylaxis Capabilities

4.3 The Core Capabilities

In September 2011, DHS released the new National Preparedness Goal. At the center of the new Goal is the Core Capabilities. The Core Capabilities is a list of 31 capabilities necessary to

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address a wide range of hazards based on the results of a national risk assessment conducted by DHS. The Core Capabilities serve as the successor to the Target Capabilities List. A Core Capability to Target Capability Crosswalk is set forth in Appendix A. A breakdown of the Core Capabilities by mission area is set forth in Table 1 below.

| Table 1: Core Capabilities by Mission Area | | | | |
|--|---------------------------------|----------------------------|-------------------------------|-----------------------------------|
| | | Common | | |
| | | Planning | | |
| | | c Information and W | | |
| | | perational Coordinat | | _ |
| Prevention | Protection | Mitigation | Response | Recovery |
| Forensics and | Access Control | Community | Critical | Economic |
| Attribution | and Identity Verification | Resilience | Transportation | Recovery |
| Intelligence and | | Long-term | Environmental | Health and Social |
| Information Sharing | Cyber Security | Vulnerability Reduction | Response/Health and Safety | Services |
| Interdiction and | Intelligence and Information | Risk and Disaster | Fatality | Housing |
| Disruption | Sharing | Resilience Assessment | Management Services | Infrastructure Systems |
| Screening, | Interdiction and | | Infrastructure | |
| Search, and Detection | Disruption | Threats and Hazard | Systems | Natural and Cultural Resources |
| | Physical | Identification | Mass Care | |
| | Protective | | Services | |
| | Measures | | | |
| | | | Mass Search and | |
| | Risk | | Rescue | |
| | Management for Protection | | Operations | |
| | Programs and | | On-scene | |
| | Activities | | Security and | |
| | ~ . | | Protection | |
| | Screening, | | Operational | |
| | Search, and | | Operational Communications | |
| | Detection | | Communications | |
| | Supply Chain | | Public and Private | |
| | Integrity and | | Services and | |
| | Security | | Resources | |
| | | | Public Health and | |
| | | | Medical Services | |
| | | | Situational | |
| | | | Assessment | |

4.4 Public Health And Medical Capabilities

Unlike the Target Capabilities, which included seven distinct medical and health related capabilities, the new Core Capabilities has one all-inclusive Public Health and Medical Services capability under the response mission area. However, in 2011, the Centers for Disease Control and Prevention (CDC) released the *Public Health Preparedness Capabilities, National Standards for State and Local Planning*. This document outlines a series of capabilities (15 in total) intended to "assist state and local planners in identifying gaps in preparedness, determining the specific jurisdictional priorities, and developing plans for building and sustaining capabilities."⁵

Many of the CDC's public health and medical related capabilities link directly to the Target Capabilities List medical and health capabilities, which the Bay Area had built most of its medical and health related objectives around. As such, for those CDC capabilities that have such a link, the Bay Area will use those CDC capabilities to develop specific medical and health related objectives in the *Strategy*. This will ensure consistency between the broader homeland security efforts in the region and the specific medical and health programs the Bay Area's public health and medical stakeholders are engaged in with the CDC.⁶ Moreover, all of the efforts undertaken to enhance these medical and health capabilities can be "rolled-up" under the single Public Health and Medical Services Core Capability for reporting purposes to DHS.

A breakdown of the CDC's public health capabilities applicable to the *Strategy* are listed in Table 2.

| CDC Capability | Target Capability |
|--|----------------------------------|
| Public Health Laboratory Testing | Laboratory Testing |
| Public Health Surveillance and Epidemiological | Epidemiological Surveillance and |
| Investigation | Investigation |
| Medical Surge | Medical Surge |
| Medical Counter Measures Dispensing | Mass Prophylaxis |
| Medical Material Management and | Medical Supplies Management and |
| Distribution | Distribution |
| Non-Pharmaceutical Interventions | Isolation and Quarantine |

 Table 2: CDC Capabilities and Target Capabilities Crosswalk

⁵ Centers for Disease Control and Prevention, *Public Health Preparedness Capabilities, National Standards for State and Local Planning* (2011), page 2.

⁶ The Emergency Triage and Pre-hospital Treatment Target Capability is primarily focused on the emergency medical services community. As such, it is not directly accounted for in the CDC capabilities. However, the Bay Area will continue to use Emergency Triage and Pre-hospital Treatment in the *Strategy* as part of its medical and health objectives. Also, the Core Capabilities has Fatality Management Services distinct from the Public Health and Medical Services. However, the Bay Area has included Fatality Management under the medical and health goal in the *Strategy* and will continue to do so.

SECTION 5 RISK OVERVIEW

5.1 Introduction

A core element of Bay Area strategic planning is utilizing risk data and risk management principles to guide planning and investments. In 2012, the Bay Area updated its risk assessment data concerning terrorism and natural hazards, the results of which are summarized here. As risk is a dynamic attribute and can shift over time, the 2011 follow-up analysis builds upon the solid baseline established in 2009 and 2010 and will need to be updated again in the future.

The purpose of this section is to highlight and summarize the key findings from the 2012 risk validation analysis as outlined in the Risk Analysis Center as of November 2012. This section begins by providing details regarding the risk methodology utilized for completing the risk analysis. Although the 2012 risk analysis focused primarily on terrorism risk, the Bay Area also considered risks posed by natural hazards. In terms of terrorism events, the 2012 analysis considered sixteen terrorism (and nine natural hazard) scenarios that could potentially impact the region. The analysis goes on to determine which of those scenarios posed the greatest relative risk to the region. The focus then moves to defining the public and private sector critical assets for risk analysis and then to analyzing asset risk by each of the critical infrastructure and key resources (CIKR) sectors across the entire region as defined by the National Infrastructure Protection Plan (NIPP).

5.2 Risk Methodology

A terrorism event is defined under federal law 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.⁷" A natural event causes a hazard when it harms people or property. Such natural events may include floods, earthquakes, tornadoes, tsunamis, coastal storms, landslides, and wildfires that strike populated areas.

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.**

• *Threat*: The likelihood of the occurrence of an incident, including those that are caused by nature (e.g., floods, windstorms, earthquakes) and those that are human-caused (e.g., acts of terrorism and industrial accidents). *Likelihood* refers to the estimate of the

⁷ 28 C.F.R. Section 0.85

potential of an incident or incident's occurrence as compared to other scenarios in a particular region and takes into account adversarial intent and capabilities.

- *Vulnerability*: Likelihood of the asset⁸ succumbing to a terrorist attack or natural hazard. Vulnerability is a function of an asset's recognizability, resilience, and countermeasures effectiveness, such as gates, cameras, guards, etc. The higher the asset's vulnerability the greater the chance a terrorist attack will succeed or a natural hazard will cause damage to that asset. For example, a building with no gate or wall is more vulnerable to a vehicle borne improvised explosive device (more likely to succumb to the attack) than the same building is with a reinforced gate or concrete wall designed to block vehicular traffic.
- *Consequence*: Consequences of an attack can impact one or all of the following areas:
 - **Human:** The adverse impact of an incident on human health as measured by the number of fatalities and injuries the incident causes, as well as by the resulting long-term health effects.
 - **Economic:** The harm caused by an incident as measured by short-term costs of repair efforts, as well as by the long-term impact of an incident on the economic activity of the asset attacked.
 - **Mission:** The severity of the impairment of the asset that an incident inflicts. Mission interruption includes the degree of interruption, geographic scope, and mission criticality.
 - **Psychological:** The adverse impact of an incident on the morale and confidence of the population. Such adverse impacts may include a reduced sense of general well-being, concerns about personal security, and reduced confidence in the government and the economy.

Multiple kinds of risk exist, and driving the Bay Area's risk profile are the characteristics of the assets and population in the area. Further, an area may have a higher risk of one type but not necessarily of others. The Bay Area currently looks at risk in four broad categories:

- Terrorism Risk to People
- Terrorism Risk to Assets
- Natural Hazard Risk to People
- Natural Hazard Risk to Assets

Population risk takes into account not only how many people are present in a given area but also how those people are distributed within a jurisdiction or region (local population density). Population risk calculations consider residents, commuters, and international visitors in a given area. While asset risk looks at the risk to the area from attacks on or incidents involving an area's critical infrastructure, population risk gives an overview of risk to the major population-at-large.

⁸ An asset is a piece of infrastructure such as a bridge, building, power plant, etc. An asset can also include cyber infrastructure such as networks and software.

5.3 Description of Threats and Hazards

The following is a summary of the sixteen terrorism and nine natural hazard scenarios used to help determine the Bay Area's risk profile. The terrorism scenarios are based, in part, upon actual terrorist methods used in attacks around the world such as improvised explosive devices and conventional assaults. While several of the attack scenarios listed have never been used by terrorists, e.g., an improvised nuclear device against a major U.S. city, the intent to acquire and use such weapons and tactics has been clearly articulated by certain terrorist groups.

| Scenario | Description |
|--|---|
| Agro-terrorism | An attack on the agriculture/food supply chain. Largely designed to inflict economic damage. |
| Aircraft as a Weapon | The aircraft as a weapon scenario consists of attackers using an airplane to inflict a direct impact on a target. Damage to the asset is a result of the initial explosion of the airplane's fuel supply, as well as secondary events like fires or building collapses. Catastrophic attacks involving commercial airplanes occurred on September 11, 2001 involving financial and military targets in New York, Virginia, and Pennsylvania. A far less severe attack involving general aviation occurred on February 18, 2010 when a man flew a small plane into an IRS building in Austin, Texas. |
| Arson/Incendiary Attack | Arson or incendiary attacks have been used widely throughout history by terrorist groups and criminals. Attacks vary widely in scope and intensity, from the use of one small incendiary device like a Molotov cocktail to setting a fire from multiple ignition points on one site using highly flammable fuel. In 2008, the Earth Liberation Front burned down a housing development in Woodinville, Washington. The Provisional Irish Republican Army made extensive use of Molotov cocktails in its fight against British control of Ireland. |
| Biological Attack (Contagious) | Use of a biological agent that can be spread from human to human and results in negative health effects. This includes the intentional release of communicable infectious diseases such as pandemic flu and Bubonic Plague. |
| Biological Attack (Non- contagious) | Use of a biological agent that cannot be directly spread from human to human but results in negative health effects. Non-contagious biological attacks typically require direct contact or inhalation with a biological strain — for example, the 2001 Anthrax attacks, which killed five people. |
| Chemical Attack | A chemical release on a population using toxic and corrosive chemicals that generate poisonous gases, liquids, and other hazardous substance. Chemical attacks include the release of a nerve agent, blister agent, or industrial chemicals used against an asset's population. Scenario includes aerosol or other distribution of mustard gas, arsenic, mercury, Sarin, or other similar substances. This also considers the use of explosives against chlorine tanks. |
| Conventional Attack | Conventional attacks include attacks executed with weapons that are not weapons of mass destruction. This can include grenades, bombs, mines, missiles, small firearms, and large-caliber artillery systems. One of the most notable conventional attacks in recent history occurred in 2008 in Mumbai, India, where terrorists affiliated with Islamist group Lashkar-e-Taiba attacked multiple public sites with bombs and guns. |
| Cyber Attack | Computer-based attack aimed to disrupt the function of an asset or obtain sensitive information from the asset's computer systems. Attacks may involve service disruption or manipulation using destructive worms and viruses, Denial of Service exploits, and intrusions. Actors either inside or outside of the asset's organization could carry out acts of sabotage. |
| Food and Water Contamination | Poisoning or otherwise tampering with a food/water distribution point in such a way that causes harmful health effects. Poisoning may include the use of bacteria, viruses, and heavy metals. Attacks at a distribution point may spread among the population. |

Table 3: Terrorism Scenarios

| Scenario | Description | |
|--------------------------------|--|--|
| Hostage | Attack in which terrorists enter an asset and hold captives; also any attack targeting and | |
| Taking/Assassination | killing key officials or significant persons who are present at a site. | |
| Improvised Explosive | IEDs are bombs that are not of standard military construction, but may utilize | |
| Device (IED) | | |
| Device (IED) | components that are. Constructed using any type of explosive material, fuse, detonator, | |
| | and container, they can also include biological, chemical, or other contaminants. IEDs | |
| | have been used widely by terrorist groups; recent examples include use by the Taliban | |
| | in Afghanistan against Coalition and Afghan forces and by the Liberation Tigers of | |
| | Tamil Elam against the Sri Lankan government, most often via suicide bombers. | |
| Maritime Attack | Use of a sea vessel to deliver explosives against a target, such as another ship or port | |
| | asset directly adjacent to a waterway. In 2000, 17 military personnel were killed when | |
| | such an attack targeted the USS Cole. | |
| Nuclear Device | A nuclear device scenario involves the detonation of a weapon assembled using highly | |
| | enriched uranium, most likely stolen or purchased from an unstable nuclear or former | |
| | nuclear state. A device could be assembled near an UA and transported via vehicle to a | |
| | densely-populated location for detonation. Such an attack has yet to occur; however, | |
| | overwhelming casualties within 12 miles can be expected, with decreasing casualty | |
| | rates extending over a 150-mile radius. Long-term environmental and health effects can | |
| | be expected, as well as damage exceeding \$100 billion. | |
| Radiological Dispersion | An attack, also called a "dirty bomb," combining radioactive materials and conventional | |
| Device (RDD) | explosives. The explosives cause damage and casualties within the blast radius and | |
| | spread radiation over a larger area. Though a potentially large number of people could | |
| | be exposed, the radiation levels are unlikely to cause significant deaths. However, a | |
| | radiation attack would have considerable psychological effects on the public. | |
| Sabotage/Theft | Sabotage encompasses any act intended to prevent an asset from engaging in its | |
| _ | mission. It can affect any sector and any level of an asset, and it may be carried out by | |
| | any actor to include disgruntled employees or terrorists. Sabotage is often classified | |
| | solely or simultaneously as one or more other crimes, such as arson. An unidentified | |
| | individual injected a glue-like substance into a remote shutdown panel at a nuclear | |
| | power plant in St Lucie, Florida, in 1996. In 2006, the Salafist Group for Call and | |
| | Combat vandalized and set fire to an Algerian cement plant and company vehicles. | |
| Vehicle Borne Improvised | VBIEDs are IEDs delivered via vehicles. A large sedan can yield up to 1,000 pounds | |
| Explosive Devices (VBIED) | (lbs) of explosives in the trunk alone; a small box truck can yield over 10,000 lbs. By | |
| - | comparison, the truck used in the Oklahoma City bombing was carrying 4800 lbs of | |
| | explosives. This method of attack is historically common and still used by groups such | |
| | as al Qaeda, which describes the attack in detail in its training manual. | |
| | | |

| | Table 4: Natural Hazard Scenarios |
|--------------|---|
| Scenario | Description |
| Floods | Floods, according to FEMA, are one of the most common hazards in the United States. Flood effects can be local, impacting a neighborhood or community, or very large, affecting entire river basins and multiple states. However, all floods are not alike. Some floods develop slowly, sometimes over a period of days. But flash floods can develop quickly, sometimes in just a few minutes and without any visible signs of rain. Flash floods often have a dangerous wall of roaring water that carries rocks, mud, and other debris and can sweep away most things in its path. Overland flooding occurs outside a defined river or stream, such as when a levee is breached, but still can be destructive. Flooding can also occur when a dam or levee breaks, producing effects similar to flash floods. |
| Earthquake | An earthquake is ground shaking caused by a sudden movement of rock in the Earth's crust. Such movements occur along faults, which are thin zones of crushed rock separating blocks of crust. When one block suddenly slips and moves relative to the other along a fault, the energy released creates vibrations called seismic waves that radiate up through the crust to the Earth's surface, causing the ground to shake. Earthquakes may last only a few seconds or may continue for up to several minutes. They can occur at any time of the day or night and at any time of the year. They are caused by stress that builds up over time as blocks of crust attempt to move but are held in place by friction along a fault. (The Earth's crust is divided into large plates that continually move over, under, alongside, or apart from one another atop the partly molten outer layer of the Earth's core.) When the pressure to move becomes stronger than the friction holding them together, adjoining blocks of crust can suddenly slip, rupturing the fault and creating an earthquake. |
| Wildfires | A wildfire in California may involve a fire burning uncontrolled on lands covered wholly or in part by timber, brush, grass, grain, or other flammable vegetation. It may also include any fire, controlled or uncontrolled, including a campfire, burning outside of any structure, mobile home, or living accommodation mounted on a motor vehicle. California has been extremely susceptible to such fires over the years with some of the largest wildfires in the U.S. occurring in the State. |
| Severe Winds | Severe winds occurring as a result of thunderstorms can be a threat to both life and property. For example, according to the National Weather Service, extreme winds, those damaging wind gusts of 58 mph or greater, within 12 miles of a location, pose an extreme likelihood (36% or greater) of causing minor to major damage in the worst situations. |
| Tornado | A tornado is a violent, dangerous, rotating column of air that is in contact with both the surface of the earth and a funnel shaped cumulonimbus cloud ranging in width from a few yards to more than a mile and whirling at destructively high speeds, ranging from 100 to as high as 300 miles per hour. |
| Hail | A hailstorm is a storm of spherical balls of ice. Hail is a product of thunderstorms or intense showers. It is generally white and translucent, consisting of liquid or snow particles encased with layers of ice. Hail can cause serious damage to cars, aircraft, skylights, glass-roofed structures, livestock and crops, etc. |
| Pandemic | A naturally occurring disease outbreak can cause illness and result in significant casualties. Since 1900, there have been three influenza pandemics that killed approximately 600,000 people in the United States. The 2009 H1N1 flu, first identified in Imperial and San Diego counties, killed more than 550 Californians, sent thousands more to hospitals, caused widespread fear and anxiety and the declaration of a public health emergency. |

Table 4: Natural Hazard Scenarios

5.4 Critical Infrastructure and Key Resources

For the 2012 update, the Northern California Regional Intelligence Center (NCRIC) compiled a list of approximately 8,500 critical infrastructure and key resource assets in the entire Bay Area that cover all 18 *National Infrastructure Protection Plan* (NIPP) sectors. A breakdown of those critical assets by sector is set forth in Figure 2 below. The sector with the largest number of assets is the government sector with over 3,500 assets and the sector with the fewest number of assets is nuclear with just two assets.



The Bay Area's assets include such iconic sites and businesses as the Pyramid Building, the Golden Gate Bridge, Apple, 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, including from the National Football League, National Hockey League, National Basketball Association and Major League Baseball. 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 Ames Center, the San Francisco Mint, the Defense Language Institute, and the Naval Postgraduate School.

The region has further refined its assets into four priority levels (Level I being the highest and Level IV being the lowest priority) with the vast majority of the assets (over 6,300) falling into priority level IV. Only 2% of the total assets fall under Level I. Such a breakdown reflects the region's goal of accounting for as many assets as possible while recognizing that a small subset of those assets, if attacked or otherwise incapacitated, could have a devastating impact on the region. Figure 3 summarizes the distribution of assets across all four levels.



5.5 Risk Profile

The focus of the analysis was on terrorism scenarios and overall terrorism risk to the region's CIKR. However, an analysis was also done concerning natural hazards such as earthquakes, floods and wildfires, etc. This is based on the fact that while natural hazard risk plays a role in how the Bay Area will set its strategic goals and objectives, that role is contingent on a link to terrorism preparedness. Thus, the Bay Area's focus is on building capabilities that have a primary nexus to terrorism while recognizing that such capabilities may also have a "dual" purpose of enhancing all hazards preparedness. This concept of "dual use" has been recognized and encouraged by DHS for many years when developing strategies and investments.

5.5.1 Terrorism Risk

In analyzing the risk of certain attacks against the region's CIKR, two of the sixteen terrorist methods stood out as outlined in Figure 4 below. The top four scenarios for the Bay Area region included the vehicle borne improvised explosive device (VBIED) attack, the aircraft as a weapon attack scenario, a conventional IED attack, a contagious biological attack and a cyber-attack rounding out the top five. The VBIED attack method stood out by a considerable margin, accounting for just over 50% of the total risk to the region's assets. These five scenarios were followed by the remaining nine attack scenarios that pose a risk to the region.



Figure 4: Bay Area Terrorism Scenario Risk Profile
When compared to a threat/likelihood only analysis, i.e., those terrorism scenarios that are the most likely to occur in the Bay Area, the ranking of terrorism scenarios does change for the region. As outlined in Table X below, eight out of the sixteen scenarios have a greater likelihood of occurring than they pose an overall risk to the region, while six scenarios pose a greater risk to the region than they are likely to actually occur. Under a likelihood analysis, the top five scenarios in rank order are:

- IED
- VBIED
- Cyber-attack
- Arson
- Sabotage

Excluded from this list of the top five most likely scenarios are the aircraft as a weapon and contagious biological attack scenarios each of which is in the top five for overall risk, but which have considerably lower likelihood scores than risk scores. This means that while the two scenarios are not likely to occur, in the event they did occur, the region's vulnerability to such attack methods would result in high human, economic and psychological consequences. Figure 5 summarizes risk versus likelihood for all sixteen terrorism scenarios.





5.5.2 Natural Hazards Risk

The Bay Area's CIKR also face significant risk from natural hazards; in particular floods and earthquakes. As outlined in Figure 6 below, floods pose the greatest risk to the Bay Area's CIKR based upon their frequency, the region's vulnerability to such an event and the consequences of major flooding in terms of lives and property.





The Bay Area rests upon one of the longest and most active earthquake fault systems in the world. This system includes the San Andreas Fault, the Hayward Fault and the Calaveras Fault. The U.S. Geological Survey estimates an 80% chance of a magnitude 6.7 or greater quake striking the Bay Area within the next 30 years.

Based on the Bay Area's topography, the risk from wild land fires is also a reality. Four wildfires in California have burned at least 200,000 acres since 2007. Though evacuations help limit casualties, significant economic loss can still occur.

5.6 Asset Risk by Sector

For 2012, nearly two thirds, or 66% of the Bay Area region's terrorism asset-based risk is located in the government and transportation sectors. Another 27% of asset-based risk can be found in the banking, commercial and healthcare sectors as shown in Figure 7 below.





An overarching theme from the Bay Area's risk analysis process is that simply because a sector may be at high or low risk from a particular attack scenario or multiple attack scenarios, each individual asset within each sector may have a risk profile vastly different from the sector at large. This requires regional planners, asset owners and operators, and the agencies responsible for prevention, protection, mitigation, response and recovery activities to evaluate risk data both individually by site and by attack scenario in order to make more precise security investment decisions on specific assets and sectors.

While much of the Bay Area's infrastructure is found in the commercial, government and emergency services sectors, as outlined in Table 5 below, the terrorism asset risk in the Bay Area does not follow the sectors with the largest number of assets. This is most prevalent in the emergency services sector where the sector ranks 4th in total number of assets and yet ranks 13th in risk. The cause of this type of discrepancy is the nature and type of assets in each sector. A small group of assets or even a single asset can have very high risk due to the likelihood of an

attack, the vulnerability to attack and the human, economic, mission and psychological consequences resulting from an attack. When it comes to risk, "quality" very much outweighs "quantity."

| Table 5: Bay Area CIKR Sector Rankings | | | | |
|--|-------------------------------------|-------------------------|--|--|
| Rank | Sectors Ranked by Sectors Ranked by | | | |
| | Total Assets | Risk | | |
| 1 | Government | Government | | |
| 2 | Commercial | Transportation | | |
| 3 | Transportation | Banking | | |
| 4 | Emergency Services | Commercial | | |
| 5 | Postal | Health | | |
| 6 | Dams | Defense Industrial Base | | |
| 7 | Health | Monuments and Icons | | |
| 8 | Banking | Water | | |
| 9 | Water | Communications | | |
| 10 | Food and Agriculture | Energy | | |
| 11 | Energy | Postal | | |
| 12 | Communications | Chemical | | |
| 13 | Information Technology | Emergency Services | | |
| 14 | Critical Manufacturing | Dams | | |
| 15 | Defense Industrial Base | Critical Manufacturing | | |
| 16 | Chemical | Information Technology | | |
| 17 | Monuments | Food and Agriculture | | |
| 18 | Nuclear | Nuclear | | |

The current list of approximately 8,500 assets represents a major change from 2010 when the region accounted for approximately 2,900 assets. Thus, the Bay Area's asset list is by no means static and will certainly change as the quality of information available to the region continues to improve. For now, the current list reflects a broad representation across multiple CIKR sectors that local subject matter expertise, using best available methods, deem appropriate.

5.7 Capabilities Assessment

Once the 2012 risk assessment was complete, the Bay Area analyzed the relevance of the 31 Core Capabilities based on the region's risk profile. Capability relevance is defined as those capabilities most needed in order to prevent, protect against, mitigate, respond to or recover from threats and acts of terrorism that pose the greatest risk to the region's CIKR. Some of the 31 Core Capabilities are relevant to many different types of hazards affecting the spectrum of CIKR sectors, while others link closely to a few discrete scenarios.

Upon completing the risk relevance analysis, the Bay Area engaged in a region-wide selfassessment covering all 31 of the Core Capabilities. For the assessment, capability levels were organized into four quartiles that determined level of ability: low, medium low, medium high and high as out lined in Table 6 below.

| | Table 0: Capability Assessment Devels of Ability | | | |
|--------|---|--|--|--|
| Low | 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. | | | |
| | | | | |
| | 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. | | | |
| | | | | |
| | 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. | | | |
| Medium | Needs within this activity have been recognized and initial efforts have been made to satisfy some | | | |
| Low | measures/metrics at the specified level for this activity, but very few if any have been met. | | | |
| | | | | |
| | 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. | | | |
| Medium | Though much effort remains to satisfy the needs for this activity, a plan is in place to satisfy the | | | |
| High | rest. Remaining issues are being identified. | | | |
| 0 | | | | |
| | 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. | | | |
| High | Most/Almost all needs are satisfied for this activity, and though moderate effort remains and a few | | | |
| 0 | 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. | | | |
| | | | | |
| | 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. | | | |
| | * | | | |

Table 6: Capability Assessment Levels of Ability

The Core Capabilities were then plotted by terrorism risk relevance *and* capability gap depending on each capabilities risk relevance and the size of the gap in the capability. The Core Capabilities with the largest capability gap and highest risk relevance were ranked highest. The results from the Bay Area's 2012 Core Capabilities assessment are summarized in Table 7 below.

| | Table 7: Capability Assessment Results | | | | |
|----------|--|-----------|-------------|-----------------------|--|
| Risk and | Target | Risk | Level of | Gap | |
| Gap | Capability | Relevance | Ability | Analysis | |
| 1 | Infrastructure Systems | 2 | Low | Needs Extra Attention | |
| 2 | Long Term Vulnerability Reduction | 5 | Low | Needs Extra Attention | |
| 3 | Community Resilience | 6 | Low | Needs Extra Attention | |
| 4 | Forensics and Attribution | 11 | Low | Needs Extra Attention | |
| 5 | Interdiction and Disruption | 9 | Medium Low | Needs Attention | |
| 6 | Public Information and Warning | 12 | Medium Low | Needs Attention | |
| 7 | Screening, Search and Detection | 14 | Medium Low | Needs Attention | |
| 8 | Situational Assessment | 1 | Medium High | Adequate | |
| 9 | Threat and Hazard Identification | 3 | Medium High | Adequate | |
| 10 | Risk and Disaster Resilience Assessment | 4 | Medium High | Adequate | |
| 11 | Risk Management for Protection Programs/Activities | 7 | Medium High | Adequate | |
| 12 | Physical Protective Measures | 8 | Medium High | Adequate | |
| 13 | Intelligence and Info Sharing | 10 | High | Adequate | |
| 14 | Planning | 13 | Medium High | Adequate | |
| 15 | Access Control and Identity Verification | 17 | Low | Needs Attention | |
| 16 | Cyber Security | 20 | Low | Needs Attention | |
| 17 | Fatality Management | 21 | Low | Needs Attention | |
| 18 | Operational Coordination | 15 | Medium Low | Needs Attention | |
| 19 | Operational Communications | 16 | Medium Low | Needs Attention | |
| 20 | On-Scene Security and Protection | 18 | Medium Low | Needs Attention | |
| 21 | Public Health | 19 | Medium Low | Needs Attention | |
| 22 | Critical Transportation | 22 | Medium Low | Needs Attention | |
| 23 | Health and Social Services | 25 | Low | Adequate | |
| 24 | Supply Chain Security | 26 | Low | Needs Attention | |
| 25 | Economic and Community Recovery | 27 | Low | Needs Attention | |
| 26 | Natural and Cultural Resources | 28 | Low | Needs Attention | |
| 27 | Public and Private Services | 30 | Low | Adequate | |
| 28 | Mass Care Services | 29 | Medium Low | Adequate | |
| 29 | Mass Search and Rescue | 23 | Medium High | Adequate | |
| 30 | Environmental Response | 24 | Medium High | Adequate | |
| 31 | Housing | 31 | Low | Adequate | |

Table 7: Capability Assessment Results

The results of the capabilities assessment were then linked to those hazards that pose the greatest risk to the region, and CIKR sectors in the region at greatest risk from those hazards. The result is the matrix set forth below in Table 8, which provides a blue print for planning and investing in order reduce the risk to the listed CIKR sectors posed by the listed hazards by enhancing or sustaining the listed Core Capabilities.

| | Table 8: Hazards, Sectors and Capabilities Matrix | | | | |
|----------------------------|---|--|--|--|--|
| Highest Risk Hazards | Terrorists' Use of Explosives | Earthquake | Floods | Contagious Biological | |
| | Transportation | Commercial | Water | Transportation | |
| | Government | Health | Government | Government | |
| Sectors at Highest Risk | Banking | Government | Transportation | Health | |
| 8 | Commercial | Transportation | Health | Commercial | |
| | Health | Information Technology | Emergency Services | Banking | |
| | Planning | Planning | Planning | Planning | |
| | Operational Communications | Operational Communications | Operational Communications | Risk Management for Protection Programs and Activities | |
| | On-Scene Security and Protection | Community Resiliency | Community Resiliency | Intelligence and Information Sharing | |
| | Threat and Hazard Identification | Risk and Disaster Resilience Assessment | Threat and Hazard Identification | Public Health and Medical | |
| | Intelligence and Information Sharing | Intelligence and Information Sharing | Intelligence and Information Sharing | Intelligence Analysis and Production | |
| | Critical Infrastructure Protection | Long Term Vulnerability Reduction | Situational Assessment | Critical Transportation | |
| Most Relevant | Interdiction and Disruption | Operational Coordination | Operational Coordination | Public Information and Warning | |
| Capabilities | Mass Search and Rescue | Public and Private Services | Public and Private Services | Fatality Management | |
| - | Operational Coordination | Volunteer Management and Donations | Critical Transportation | Environmental Response | |
| | Fatality Management | Public and Private Services | Public Information and Warning | Infrastructure Systems | |
| | Dublin Haulth and Madian | Critical Transportation | Mass Care | | |
| | Public Health and Medical | • | Mass Search and Rescue | Forensics and Attribution | |
| | | On-Scene Security and Protection | Fatality Management Public Health and Medical | | |
| | Environmental Response | | Economic Recovery | Situational Assessment | |
| | | Economic Recovery | | | |
| | Screening, Search and Detection | Fatality Management | Infrastructure Systems | | |
| - | Long Term Vulnerability Reduction | Situational Assessment | | | |
| | Forensics and Attribution | Mass Care | | | |
| | Physical Protective Measures | Mass Search and Rescue | | | |
| | Situational Assessment | Infrastructure Systems | | | |
| | Risk Management for Protection Programs and | Public Health and Medical | | | |
| | Activities | Public Information and Warning | | | |

Table 8: Hazards, Sectors and Capabilities Matrix

SECTION 6 GOALS, OBJECTIVES & IMPLEMENTATION STEPS

6.1 Overview

The goals and objectives of the *Strategy* serve as the core for what the Bay Area will seek to achieve over the next three years in the mission areas of prevention, protection, mitigation, response and recovery. The goals and objectives represent the culmination of integrating risk and capabilities assessment by establishing specific implementation steps that are designed to achieve or maintain capability outcomes in those capabilities that are most relevant based on the Bay Area's risk and capability profile.

The goals and objectives are directed towards the next three years but may be reviewed and updated annually or as needed. It is likely that some of the objectives will carry over from year to year while others may be removed or updated based on the region's progress and actual needs. The goals and objectives will continue to be defined by risk analysis, identified preparedness gaps and sustainment priorities.

6.2 Organizing the Goals and Objectives

The goals and objectives represent not only the priorities of the region but also the region's implementation of State and National level policy and priorities at the regional level. As such, each goal is based on alignment with the National Homeland Security Priorities (and/or the State of California Homeland Security Strategy priorities) and each objective with a Core Capability from the National Preparedness Guidelines, which outline the capabilities needed to implement the National Priorities and the five mission areas, or a CDC Public Health Preparedness Capability for medical and health related objectives. The purpose of aligning each objective to a capability is to ensure the *Strategy* is designed around managing risk by enhancing capabilities through investments and other activities.

The Core Capabilities and Public Health Preparedness Capabilities were first organized under relevant National Priorities. The National Priorities were then converted, and sometimes merged, into regional goals with the capabilities converted into specific objectives under each goal. Where no equivalent National Priority exists, the Bay Area simply developed its own goal to meet its own local needs. For example, the Bay Area has developed a recovery goal, whereas the federal government has not delineated recovery as a National Priority. In addition, the federal government has listed implementing the NIPP and Strengthening Information Sharing and Collaboration as separate National Priorities. The Bay Area has combined both priorities into a single regional goal designed to enhance information analysis and infrastructure protection.

6.3 Structuring the Goals and Objectives

The goals and objectives are structured around sustaining sufficient levels of ability and closing identified capability gaps. While capabilities from the Core Capabilities Public Health Preparedness Capabilities are listed as their own objective, the objectives, like the capabilities

themselves, do not operate in a vacuum. Objectives often are linked to one another with elements of one objective sometimes found in another. This is a product of the fact that the capabilities are not isolated from each other. Rather, they overlap one another with elements of one capability present in another or even several others.

Using the capabilities-based planning model as outlined by DHS, each goal and related objective(s) will be implemented through a series of resource elements divided among the elements of capability: plans, organization, equipment, training and exercises (POETE) as defined in Table 9 below." The POETE resource elements outline what resources are needed for the region to achieve each capability based objective. They serve as a critical strategic guide for the region and jurisdictions to develop actual projects that will result in achievement of a particular objective. As such, they are not an exhaustive list meant to limit steps necessary to achieve a goal or objective but instead operate as a roadmap.

The detail of a POETE implementation step may vary from objective to objective or even in a single objective depending on the level of detailed data available from risk and capabilities assessments. Finally, the region and jurisdictions are *not* required to generate projects for each goal and objective in a given grant or funding cycle. Rather, each grant applicant must prioritize projects based on this Strategy and their own risk and need.

| Planning | Development of policies, plans, procedures, mutual aid agreements, | | |
|--------------|---|--|--|
| | strategies and other publications that comply with relevant laws, | | |
| | regulations, and guidance necessary to perform assigned missions and | | |
| | actions. | | |
| Organization | Specific personnel, groups or teams, an overall organizational structure, and | | |
| | leadership at each level in the structure that comply with relevant laws, | | |
| | regulations, and guidance necessary to perform assigned missions and | | |
| | tasks. Paid and volunteer staff who meet relevant qualification and | | |
| | certification standards necessary to perform assigned missions and tasks. | | |
| Equipment | Major items of equipment, supplies, facilities, and systems that comply | | |
| | with relevant standards necessary to perform assigned missions and tasks. | | |
| Training | Content and methods of delivery that comply with training standards | | |
| | necessary to perform assigned missions and tasks. | | |
| Exercises | Exercises, self-assessments, peer-assessments, outside review, compliance | | |
| | monitoring, and actual major events that provide opportunities to | | |
| | demonstrate, evaluate, and improve the combined capability and | | |
| | interoperability of the other capability elements to perform assigned | | |
| | missions and tasks to standards necessary to achieve successful outcomes. | | |

Table 9: Elements of Capability⁹

⁹ U.S. Department of Homeland Security, *Target Capabilities List* (September 2007).

Set forth below are the 2012-2015 homeland security goals and objectives for the Bay Area UASI region.

| GOAL 1 | Mission Area(s) | National Priorities | Core Capabilities | State Strategy |
|---|--------------------|------------------------|---|-------------------|
| ENHANCE REGIONAL RISK MANAGEMENT AND | Common | All | Planning | N/A |
| PLANNING PROGRAM | | | Threat and Hazard Identification | |
| | | | Risk and Disaster Resilience Assessment | |

Risk Management

In 2009, the Bay Area began developing a regional risk management and planning program to enable the region to develop, sustain and fund programs, plans and operations based on risk and capabilities assessment data. Today, this risk management program has matured to the point where it serves as the foundation for collecting and analyzing data to support strategic, operational and tactical level planning across the region.

A risk regional management framework is one in which all available data and subject matter expertise and experience is utilized to make informed decisions on what actions should be taken based on the costs of such actions and the return on investment in terms of mitigating the identified risks. The risk management program encompasses virtually all of the region's activities from prevention, protection, mitigation, response and recovery efforts. A risk management program does not eliminate risk. It manages risk.

The Bay Area will continue to assess risk on a regular basis and in a consistent manner in order to provide a common understanding of the threats and hazards confronting the region. This information will, in turn, be used to help better understand what capabilities the region must possess to adequately address those risks. Part of this process will include the federally required threat and hazard identification and risk assessment (THIRA). While there are differences, the THIRA codifies at the federal level much of what the Bay Area has already begun at the regional level in terms of identifying scenarios and hazards that pose a significant risk to the region and the capabilities necessary to address those risks. The THIRA is very similar to the established hazard identification and risk assessment (HIRA) used to develop hazard mitigation plans at the Operational Area level.

Objective 1.1: Enhance Planning, Threat and Hazard Identification, and Risk Management Capabilities

The Bay Area is able to identify and assess the threats and hazards that pose the greatest risk to the whole community. The region can prioritize and select appropriate capability-based planning investments and solutions for prevention, protection, mitigation, response, and recovery concerning those risks; monitor the outcomes of allocation decisions; and undertake corrective and sustainment actions.

Objective 1.1 Implementation Steps and Resource Elements

| PLANNIN | G |
|----------|---|
| 1.1-P1 | Develop an actionable risk management strategy that includes short, medium, and long term risk management objectives at the regional and jurisdictional level. This |
| | will include an annual risk overview report for the region and risk-based formulas |
| | to allocate resources to include funding. |
| 1.1-P2 | Assign a lead planner from the Bay Area UASI to coordinate the risk management program. |
| 1.1-P3 | Develop data collection timelines, requirements, and avenues for receiving information on local threats, vulnerabilities, and consequence of loss from stakeholders at the regional, sub-regional and jurisdictional levels as part of an annual risk assessment. |
| 1.1-P4 | Conduct annual risk validation analysis – threats, vulnerabilities, consequences - for the region and, as necessary, for each operational area and such other entities as required across the Bay Area. Continue to expand the use of localized vulnerability and consequence of loss data in the analysis. |
| 1.1-P5 | Rank criticality of CIKR assets and potential targets from across the region. |
| 1.1-P6 | Organize and prioritize capabilities at the regional and jurisdictional level (where |
| 1.1-P7 | appropriate) based on those capabilities most directly linked to prioritized risks. Develop annual strategy implementation guidance and project templates for DHS |
| 1.1-1 / | UASI application process. Ensure project templates link projects to risk and |
| | capability gaps and <i>Strategy</i> goals and objectives. |
| 1.1-P8 | Develop an annual capability assessment and gap analysis process to determine |
| | where gaps remain among capabilities with an emphasis on those capabilities |
| 1 1 DO | necessary to address the region's highest risks. |
| 1.1-P9 | Assign/hire planners to assist in the implementation, evaluation and updating of the <i>Bay Area Homeland Security Strategy</i> and preparedness report at the regional, |
| | sub-regional and jurisdictional levels. |
| 1.1-P10 | Produce a Bay Area annual report that outlines the annual accomplishment and |
| | major activities to ensure all appropriate stakeholders are kept informed. |
| 1.1-P11 | Conduct grant effectiveness analysis and produce grant effectiveness reports to |
| | demonstrate the value of UASI and other homeland security grants to local, state and national leaders. |
| 1.1-P12 | Bay Area UASI Management Team to provide strategic planning technical |
| 1.1-1 12 | assistance to Operational Areas as needed. |

| - | |
|---------|--|
| 1.1-P13 | Update, as needed, the Bay Area Homeland Security Strategy based upon the |
| | latest risk and capabilities assessment data. |
| 1.1-P14 | Ensure each Operational Area has an up-to-date hazard mitigation plan, continuity |
| | of operations plan (COOP), and continuity of government (COG) plan. |
| ORGANIZ | ZATION |
| 1.101 | Communicate in writing with all regional stakeholders the risk management |
| | process and the intent to use risk in decision making. |
| 1.1-02 | Develop a risk management framework or working group to outline how risk |
| | assessments and risk analysis serve the process of managing "risks" and a process |
| | for stakeholder buy-in across all four sub-regions. This may include a |
| | comprehensive stakeholder governing process and governing bodies to oversee |
| | the risk management process. |
| 1.1-03 | Assign/hire risk analysts to conduct risk analysis and produce risk products on |
| | behalf of the region, sub-regions and jurisdictions |
| EQUIPME | ENT |
| 1.1-E1 | Sustain capabilities and risk management software and systems for the region to conduct capabilities and risk analysis to include threats, vulnerabilities and consequence of loss analysis to support tactical, operation and strategic level planning and operations. |
| 1.1-E2 | Other necessary equipment as determined by the region. |
| TRAININ | |
| 1.1-T1 | Conduct principles of risk management training for policy makers and stakeholders from across the region. |
| 1.1-T2 | Train Bay Area UASI Management Team and the NCRIC staff on the use of risk |
| | analytic tools and software planning systems. |
| EXERCIS | ES |
| 1.1-Ex1 | Ensure UASI exercise program is risk based with scenarios used and capabilities |
| | tested tied to risk. |
| 1.1-Ex2 | Conduct exercises to test COOPs and COG plans at the Operational Area and |
| | local levels. |
| | |

| GOAL 2 | Mission | National | Core | State |
|----------------|------------|------------------|-----------------------|--------------------|
| | Area(s) | Priorities | Capabilities | Strategy |
| ENHANCE | Prevention | Strengthen | Long Term | Goal 1: Enhance |
| INFORMATION | | Information | Vulnerability | Information |
| ANALYSIS AND | Protection | Sharing and | Reduction | Analysis and Law |
| INFRASTRUCTURE | | Collaboration | | Enforcement |
| PROTECTION | | Capabilities | Forensics and | Capabilities |
| CAPABILITIES | | | Attribution | _ |
| | | Implement the | | Goal 2: Protect |
| | | NIPP | Interdiction and | Critical |
| | | | Disruption | Infrastructure and |
| | | Enhance Regional | 1 | Key Resources |
| | | Collaboration | Screening, Search | |
| | | | and Detection | |
| | | | | |
| | | | Risk Management for | |
| | | | Protection | |
| | | | Programs/Activities | |
| | | | 1 Tograms/ Activities | |
| | | | Physical Protective | |
| | | | Measures | |
| | | | 1110030105 | |
| | | | Intelligence and | |
| | | | Intelligence and | |
| | | | Information Sharing | |
| | | | Access Control or d | |
| | | | Access Control and | |
| | | | Identity Verification | |
| | | | | |
| | | | Cyber Security | |

The National Intelligence and CIKR Protection Framework

Collecting and sharing information to protect critical infrastructure from threats and acts of terrorism is a core element of homeland security. In October 2007, to better coordinate the Nation's information sharing activities, the Federal Government released the *National Strategy for Information Sharing* (National Strategy). In 2006, DHS published the final *National Infrastructure Protection Plan (NIPP)* with a revised version released in 2009. Both the *NIPP* and the National Strategy represent the national level plan for information sharing and CIKR protection, the implementation of which often occurs at the local level.

The *National Strategy* is intended to ensure that those responsible for combating terrorism and protecting local communities have access to the timely and accurate information they need by:

- Providing a framework for enhanced information sharing among federal, state, local, and tribal officials; the private sector; and foreign partners to aid their individual missions and to help secure the U.S. homeland.
- Describing the Federal Government's approach to supporting state and major urban-area NCRICs, as well as national efforts to fight crime and make local communities safer.
- Recognizing that as information-sharing capabilities are enhanced, it is imperative that the legal rights of U.S. citizens continue to be protected, especially in the area of privacy and civil liberties.

The goal of the *NIPP* is to enhance protection of the Nation's CIKR to prevent, deter, neutralize, or mitigate the effects of deliberate efforts by terrorists to destroy, incapacitate, or exploit them; and to strengthen national preparedness, timely response, and rapid recovery in the event of an attack, natural disaster, or other emergency. The *NIPP's* supporting CIKR Sector-Specific Plans were released in May 2007 and provide the coordinated approach to establish national priorities, goals, and requirements for protection across each of the 18 CIKR sectors at the national level.

The Nationwide Suspicious Activity Reporting Initiative

Virtually every sophisticated terrorist attack has involved some form of pre-attack planning, surveillance and logistical support functions. Most of these pre-attack activities may or may not be criminal in nature, but virtually all could appear suspicious if viewed in isolation and potentially unravel a terrorist plot if viewed in total by a NCRIC or other intelligence agency. In order for such a total view to take place, the Nationwide Suspicious Activity Reporting (SAR) Initiative was created to allow law enforcement agencies to "develop, evaluate, and implement common processes and policies for gathering, documenting, processing, analyzing, and sharing information about terrorism-related suspicious activities."¹⁰ The Bay Area's Northern California Regional Intelligence Center (NCRIC) and law enforcement agencies can play a critical role in this process by linking not only suspicious activities in the region, but fusing those regional SARs with other suspicious activities from across the country to determine if terrorist plots are underway.

California's Intelligence Structure

Consistent with the *National Strategy* and the *NIPP*, the State of California has developed the State Threat Assessment System (STAS) to "protect California's citizenry and economy from terrorism and other criminality by collaboratively producing and disseminating critical threat information to its homeland security partners." The STAS is a public safety partnership that obtains, analyzes, and shares information, and collaboratively develops and shares California-

¹⁰ U.S. Department of Justice, Bureau of Justice Assistance, Nationwide SAR Initiative, accessed at http://nsi.ncirc.gov/documents/Nationwide_SAR_Initiative_Overview_2012.pdf

specific counter-terrorism intelligence products enabling law enforcement to prevent terrorism in California.

The STAS is made up primarily of the State Threat Assessment Center (STAC), which is the State NCRIC operated by the California Highway Patrol and CalEMA; the CalDoJ Intelligence Operations Center (IOC); and four Regional Threat Assessment Centers (RTAC) located in San Diego, Los Angeles, Sacramento and the Bay Area. The STAS is a partnership of these organizations with no single organization exercising command and control over the other. In 2008, California issued the STAS Strategic Business Plan Concept of Operations, which outlines the vision, mission, structure and operations of the STAS. This ConOp was updated in early 2011.

The STAC is responsible for coordinating with the RTACs and compiling the overall State Threat Assessment. It supports regional intelligence analysis by supplying the RTACs with additional analytical support. Each RTAC's geographic area of responsibility coincides with the local FBI field office for that region. The RTAC's work extensively with their local FBI led Joint Terrorism Task Force (JTTF) and Field Intelligence Group (FIG).

Operating within each RTAC is a Terrorism Liaison Officer (TLO) program made up of public safety agency officer(s) trained in understanding terrorism who serve as the bidirectional gateway for terrorism information between the members of his/her own department, the RTACs and CIKR owners and operators.

The Bay Area's Intelligence and Infrastructure Protection Structure

The NCRIC serves as the Bay Area's RTAC and NCRIC. The NCRIC helps safeguard the region by assisting public safety agencies from across the Bay Area in their mission to detect, prevent, investigate and respond to criminal and terrorist activity. The NCRIC is a cooperative federal, state and local public safety effort to centralize the intake, analysis, fusion, synthesis, and appropriate dissemination of criminal and homeland security intelligence. The NCRIC disseminates intelligence and facilitates communications between state, local, federal agencies and private sector partners, in order to help them take action on threats and public safety issues.

The NCRIC is also the region's primary infrastructure protection management entity. It embodies the Bay Area's approach to information sharing and analysis and critical infrastructure protection which is to fuse the two missions by collecting, analyzing and sharing threats to CIKR in order to review intelligence data and map threats against CIKR, determining the threatened infrastructure's vulnerability, and recommending a suite of protective measures and other resources to mitigate the risk posed by the threat.

While the NCRIC plays a vital in homeland security and public safety across the Bay Area, it's continued capabilities are at risk due to the fact that the NCRIC is heavily reliant on federal grant funding to sustain its personnel and capabilities; a fact outlined in the most recent federally led NCRIC baseline capabilities assessment. As federal grant funds go down, the Bay Area will strive to maintain the NCRIC's capability level in an ever tightening budget environment.

The Bay Area will work with its partners at all levels of government and the private sector throughout the intelligence cycle to ensure that information is turned into useful intelligence while at the same time respecting the privacy and civil liberties of all of its people. This will include enhanced cooperation and coordination with the region's JTTF, the region's NCRIC, local law enforcement, and private sector security forces in and around the region's critical infrastructure and key resources.

Objective 2.1 Enhance Intelligence Collection, Analysis and Sharing

The Bay Area has systems and procedures to effectively collect, analyze and timely share information and intelligence across federal, state, local, tribal, territorial, regional, and private sector entities 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. This involves sustaining and building upon the region's intelligence fusion center to include the ability to identify and systematically report suspicious activities associated with potential terrorist or criminal pre-operational planning and logistics.

Objective 2.1 Implementation Steps and Resource Elements

| PLANNIN | G |
|---------------|--|
| 2.1-P1 | Ensure NCRIC planners and fiscal agents are in place. |
| 2.1-P2 | Maintain plans and protocols to ensure connectivity between the NCRIC and |
| | other RTACs in California. |
| 2.1-P3 | The NCRIC should lead the development of and maintain operationally sound |
| | policies to comply with regulatory, statutory, privacy, and other issues that may |
| | govern the gathering and storing of information. |
| 2.1-P4 | The NCRIC will work to ensure that jurisdictions understand and follow |
| | suspicious activity reporting guidelines. |
| 2.1-P5 | Ensure public awareness campaigns are in place, e.g. "see something, say |
| | something" at the jurisdictional level and within critical infrastructure sectors to |
| | ensure the public and private sectors report suspicious activity to appropriate |
| | authorities. Ensure the relevant information is shared with the NCRIC for action |
| | as necessary. |
| 2.1-P6 | Ensure that processes, protocols, and technical capabilities are in place at the |
| | regional and sub-regional level to allow proactive reporting and extraction of |
| | information from public, private, and law enforcement databases to the NCRIC. |
| 2.1-P7 | Develop plans and protocols to utilize social media in the acquisition of |
| 0 1 D0 | suspicious activity reports. |
| 2.1-P8 | The NCRIC will develop plans, to include MOUs, MOAs, SOPs, among Bay |
| | Area jurisdictions, outside jurisdictions, and the State of California, for the |
| | deployment of automated license plate readers (ALPRs) at fixed critical |
| 0 1 D0 | infrastructure sites as well as roaming ALPRs. |
| 2.1-P9 | Develop or maintain plans and procedures for the dissemination and routing of |
| | information and intelligence received by law enforcement agencies from outside |
| 0 1 D10 | entities and develop governance and privacy manuals. |
| 2.1-P10 | Continue to develop Terrorism Liaison Officers (TLOs) across all disciplines in |

| | the Deer American and the mathematic and developing Health Medical and |
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| | the Bay Area with a particular emphasis on developing Health, Medical and Emergency Management TLOs. |
| 2.1-P11 | Develop plans and protocols for the sharing of public health and medical information between the NCRIC and the public health and medical community to include disease surveillance information. |
| 2.1-P12 | Develop plans and SOPs for intelligence sharing between the NCRIC and mass transit systems across the Bay Area. |
| 2.1-P13 | Ensure the private sector and public works agencies are a part of the intelligence and information sharing process across the Bay Area. |
| 2.1-P14 | Ensure the NCRIC has an up to date continuity of operations plan (COOP). |
| ORGANIZ | ATION |
| 2.1-01 | Develop administrative structures and protocols to support TLOs and local law enforcement in getting the NCRIC necessary information which can later be disseminated by the NCRIC across the region to local partner agencies. |
| 2.1-02 | Provide funding to support NCRIC staff including intelligence analysts. |
| 2.1-03 | Ensure all necessary personnel possess valid and current national security clearances. |
| 2.1-04 | Provide funding to support NCRIC staff including critical infrastructure protection teams, public health and medical personnel, public safety personnel, and support staff. |
| 2.1-05 | Develop and manage counter-surveillance teams out of the NCRIC and within certain law enforcement agencies across the region to provide counter-surveillance capabilities at CIKR across the Bay Area. |
| 2.1-06 | Develop a regional public awareness and reporting campaign for suspicious activity reporting similar to the National "If You See Something, Say Something" campaign, and IWatch in Los Angeles and Washington, DC, etc. |
| 2.1-07 | Develop a policy and process to raise awareness of the NCRIC and its mission with policy makers, elected officials, first responders, community leaders and the general public. |
| 2.1-08 | Develop a process for the NCRIC to receive stakeholder feedback on all parts of the intelligence cycle to include feedback on training and exercises on intelligence and infrastructure protection. |
| EQUIPME | NT |
| 2.1-E1 | Acquire and deploy interoperable ALPR systems at high risk critical infrastructure sites across the Bay Area to detect patterns of suspicious behavior indicative of terrorist pre-operational surveillance. |
| 2.1-E2 | Ensure surveillance detection equipment is acquired and deployed at critical infrastructure and other key sites in the Bay Area including: cameras, detectors, and sensors that can send data collected to the NCRIC either directly or indirectly for analysis. |
| 2.1-E3 | Ensure all major law enforcement agencies across the Bay Area have the technology to gather and link suspicious activity reporting within each respective law enforcement agency. |
| 2.1-E4 | Acquire equipment to allow different law enforcement database systems to be linked and compatible, allowing for rapid transmission and processing of |

| | suspicious activity information across jurisdictions and with the NCRIC. |
|------------------|---|
| 2.1-E5 | Acquire tools to conduct link analysis on suspicious activity reports to determine if a pattern of terrorist pre-operational behavior is occurring in the Bay Area. |
| 2.1-E6 | Provide and sustain information technology equipment to include computers, software and hardware for intelligence analysts. |
| 2.1-E7 | Video Teleconferencing Equipment and bridges for multi-site information sharing conferencing. |
| 2.1-E8 | Ensure terminals at the NCRIC and key law enforcement and public safety agencies across the region have access to information sharing networks, including federal classified networks where appropriate. |
| TRAININ | Ĵ |
| 2.1-T1 | Train permanent and assigned analytical staff at the NCRIC on the intelligence cycle and on developing analytic products. |
| 2.1-T2 | When applicable, training should meet International Association of Law Enforcement Analytic Standards from Global Intelligence Working Group and the International Association of Law Enforcement Intelligence Analysts (GIWG/IALEIA) based standards (basic, intermediate, advanced) and such other standards as required. |
| 2.1 - T3 | NCRIC staff and law enforcement personnel should receive annual awareness training on relevant privacy and security rules, and regulations (28 CFR and any other relevant State statutes and regulations). |
| 2.1-T4 | Basic and advanced intelligence analysis training is provided for intelligence operations personnel (e.g., commanders/supervisors, officers, analysts). |
| 2.1-T5 | Provide analytic staff at the NCRIC refresher training in analytical methods and practices. |
| 2.1 - T6 | Personnel are aware of, and trained to adhere to, pre-defined security clearances and need-to-know parameters. |
| 2.1 - T87 | Personnel are trained in the process for preventing, reporting, and addressing the inappropriate disclosure of information and/or intelligence. |
| 2.1 - T8 | Provide training to fire service, law enforcement and other public sector agency personnel on identifying and reporting suspicious activity to appropriate authorities. |
| 2.1-T9 | Train public and private sector, particularly security personnel at critical infrastructure sites across the Bay Area on the detection and reporting of terrorism pre-attack surveillance and logistical/operational activities against CIKR to the NCRIC. |
| EXERCIS | ES |
| 2.1-Ex1 | Conduct exercises to test and evaluate surveillance detection capabilities of security personnel. |
| 2.1-Ex2 | Conduct exercises to test the NCRIC's ability to analyze, link, and disseminate timely and actionable intelligence to law enforcement and other public safety agencies in the region. |
| 2.1-Ex3 | Exercises to test alternative, supplemental, and back-up mechanisms for routing information and/or intelligence to the necessary agencies in an emergency. |

| 2.1-Ex4 | Exercises to test the process for preventing, reporting, and addressing the |
|---------|---|
| | inappropriate disclosure of information and/or intelligence. |

Objective 2.2 Strengthen Terrorism Attribution, Interdiction and Disruption Capabilities

The Bay Area's law enforcement community (federal, state and local) and other public safety agencies can conduct forensic analysis and attribute terrorist threats and acts to help ensure that suspects involved in terrorist and criminal activities related to homeland security are successfully identified, deterred, detected, disrupted, investigated, and apprehended.

Objective 2.2 Implementation Steps and Resource Elements

| PLANNIN | G |
|----------|---|
| 2.2-P1 | Develop a plan and procedures to ensure law enforcement investigators across the region receive timely threat and intelligence information from the NCRIC. |
| 2.2-P2 | Ensure that law enforcement agencies across the region have a systematic process for contacting the local JTTF when a connection to terrorism is discovered during a local criminal investigation. |
| 2.2-P3 | Ensure law enforcement uses investigative information to help the NCRIC identify potential CIKR terrorism targets. |
| ORGANIZ | ATION |
| 2.2-01 | Law enforcement agencies in the region should either maintain, or have access to, special operations teams compliant with the NIMS resource types (e.g., SWAT teams) capable of interdicting and disrupting terrorist and major criminal threats. |
| 2.2-02 | Larger jurisdictions or entities should each identify a designated liaison with the JTTF. |
| 2.2-03 | Ensure staffing within the NCRIC is in place for the coordination of the region's interoperable law enforcement information management and sharing system(s). |
| EQUIPME | NT |
| 2.2-E1 | Continue to deploy interoperable law enforcement information management and sharing system across all Bay Area justice agencies to include procurement of software and computer systems, hardware and peripherals. |
| 2.2-E2 | Sustain necessary law enforcement and counter terrorism equipment capabilities already in place. |
| 2.2-ЕЗ | Other authorized law enforcement and counter terrorism equipment as agreed to by the region. |
| TRAINING | G G G G G G G G G G G G G G G G G G G |
| 2.2-T1 | Provide training for patrol level officers on terrorism awareness, and protocols for passing criminal investigative information to the NCRIC and the JTTF. |
| 2.2-T2 | Train law enforcement personnel to use investigative information to identify potential vulnerabilities/target lists with the NCRIC. |
| 2.2-T3 | Provide computer-based and classroom training to TLOs, intelligence analysts, police investigators and other public safety personnel on the use of interoperable |

52

| | law enforcement records management and information sharing systems. |
|---------|--|
| 2.2-T4 | Law enforcement agencies across the Bay Area should ensure training to personnel for advanced foreign language capabilities. |
| 2.2-T5 | Provide awareness level training to law enforcement on the Terrorist Incident Annex to the NRF. |
| 2.2-T6 | Provide all appropriate personnel training on cultural awareness as it relates to terrorism. |
| 2.2-T7 | Provide training to law enforcement personnel on the use of tactical intelligence (maps, blueprints, etc.) prior to interdiction and disruption operations. |
| 2.2-T8 | Enhance and provide hostage rescue training to law enforcement. |
| 2.2-T9 | Access FEMA sponsored courses in evidence collection at WMD/HazMat and CBRNE incident sites to include Crime Scene Management for CBRNE Incidents. |
| 2.2-T10 | Provide appropriate fire service personnel training on arson investigations to include the Fire/Arson Origin and Cause Investigation (R206) and the Principles of Fire Protection: Structures and Systems (R222) courses. |
| 2.2-T11 | Provide law enforcement tactical teams training in properly "stacking" and clearing rooms and clearing other the potential threat areas during a tactical emergency response. |
| 2.2-T12 | Provide law enforcement tactical teams training on forms of cover/concealment and open area movement tactics. |
| EXERCIS | ES |
| 2.2-Ex1 | Ensure UASI exercise program incorporates terrorism attribution, interdiction and disruption capabilities into appropriate regional exercises. NCRIC staff should also participate in regional exercises to the maximum extent possible. |

Objective 2.3 Increase Critical Infrastructure Protection

The Bay Area can assess the risk to the region's physical and cyber critical infrastructure and key resources from acts of terrorism, crime, and natural hazards and deploy a suite of actions to enhance protection and reduce the risk to the region's critical infrastructure and key resources from all hazards. This includes a risk-assessment process and tools for identifying, assessing, cataloging, and prioritizing physical and cyber assets from across the region.

Objective 2.3 Implementation Steps and Resource Elements

| PLANNIN | PLANNING | | |
|---------|--|--|--|
| 2.3-P1 | Develop a Bay Area CIKR protection plan modeled on the National Infrastructure | | |
| | Protection Plan that includes metrics and measures for the CIKR program. | | |
| 2.3-P2 | Identify and catalogue by NIPP sector and sub-sector all high risk CIKR present at | | |
| | the regional, sub-regional and jurisdictional level in a secure web-based system. | | |
| 2.3-P3 | Ensure all high risk CIKR at the regional, sub-regional and jurisdictional level | | |
| | undergoes a vulnerability assessment. | | |
| 2.3-P4 | Within the NCRIC, develop a plan to collect, analyze and map suspicious activity | | |
| | reports against CIKR that may be indicators of terrorist pre-attack surveillance. | | |

| 2.3-P5 | Develop a methodology to prioritize CIKR at the regional, sub-regional and jurisdictional level. | | | | |
|----------|---|--|--|--|--|
| 2.3-P6 | Fully integrate mass transit and maritime ports across the Bay Area region into the security planning and communication and notification process at the NCRIC and the Bay Area UASI. | | | | |
| 2.3-P7 | Work with the private sector and other owners and operators of high risk CIKR to encourage their developing COOPs. | | | | |
| 2.3-P8 | Evaluate the methods of conducting a potential study of interdependencies of CIKR in the Bay Area. | | | | |
| ORGANIZ | LATION | | | | |
| 2.3-01 | Develop and utilize sector coordinating council(s) for high risk infrastructure in the Bay Area. | | | | |
| 2.3-02 | Ensure the NCRIC has CIKR protection analysts that fully integrate the intelligence/prevention and protection missions. | | | | |
| EQUIPME | INT | | | | |
| 2.3-E1 | Acquire devices that utilize biometric characteristics (fingerprints, palm prints, retinal scanning, etc.) to authorize access to facilities and/or systems. | | | | |
| 2.3-E2 | Acquire Geospatial/Geographical Information Systems including application software as well as integrated hardware for implementation. | | | | |
| 2.3-E3 | Physical security enhancement equipment for high risk CIKR. | | | | |
| 2.3-E4 | Cyber security equipment to protect cyber networks and systems. | | | | |
| 2.3-E5 | CBRNE detection equipment in and around CIKR across the Bay Area. | | | | |
| TRAINING | G | | | | |
| 2.3-T1 | Develop and implement risk and vulnerability assessment training at the NCRIC and jurisdictional level. | | | | |
| 2.3-T2 | Develop and implement a comprehensive Process Control/Supervisory Control and Data Acquisition (SCADA) cyber security awareness, education, and training program for the owners/operators of SCADA-controlled CIKR within the Bay Area. | | | | |
| EXERCIS | ES | | | | |
| 2.3-Ex1 | Develop and conduct exercise programs to test CIKR protection plans to include CIKR protection measures and technology across the Bay Area to test the effectiveness of protection capabilities. | | | | |

| GOAL 3 | Mission | National | Core | State |
|---|----------|---|-------------------------------|--|
| | Area(s) | Priorities | Capabilities | Strategy |
| ENHANCE COMMUNICATIONS CAPABILITIES | Response | Strengthen Interoperable and Operable Communications Implement the NIMS/NRF Enhance Regional Collaboration | Operational Communications | Goal 3: Strengthen Communications Capabilities |

The National Emergency Communications Plan (NECP)

Produced in 2007, DHS's *National Emergency Communications Plan (NECP)* establishes a comprehensive national vision for the future state of emergency communications. The desired future state is that emergency responders can communicate: as needed, on demand, and as authorized; at all levels of government; across all disciplines.

The *NECP* established three strategic goals:

- **Goal 1:** By 2010, 90 percent of all high-risk urban areas designated within the Urban Areas Security Initiative (UASI) are able to demonstrate response-level emergency communications within one hour for routine events involving multiple jurisdictions and agencies.
- **Goal 2:** By 2011, 75 percent of non-UASI jurisdictions are able to demonstrate responselevel emergency communications within one hour for routine events involving multiple jurisdictions and agencies.
- **Goal 3:** By 2013, 75 percent of all jurisdictions are able to demonstrate response-level emergency communications within three hours.

In 2010, according to the DHS Office of Emergency Communications, which oversees the NECP and conducted assessments of 60 Urban Areas, Goal 1 has been met. The Bay Area successfully participated in the 2010 national assessment.

Bay Area Regional Interoperable Communications System

The Bay Area is currently deploying a region-wide, standards-based, communication "system of systems" that supports first responder communication needs for local and regional agencies and interoperates with state and federal public safety agencies and designated public service organizations operating within the Bay Area region. The Bay Area will accomplish this by implementing its 2008 strategic plan for achieving interoperable communications and by coordinating its efforts with the goals and objectives of the California Statewide Communications Interoperability Plan (CalSCIP).

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BayComm is the region's 700MHz Project 25 (P25) "system of systems" voice initiative. In the past, the Bay Area agencies have traditionally used disparate frequency and antiquated legacy analog systems. Interoperability required cache radios and gateways for agencies to team together effectively during multi-jurisdictional events and disasters. The BayComm seeks to alleviate these issues by providing Bay Area first responders with a common frequency band and a common open digital standard in P25.

In August 2011, the region established the Bay Area Regional Interoperable Communications System (BayRICS) Authority, a joint powers authority charged with governance and oversight of the Bay Area Enhanced Wireless Broadband (BayWEB), a regional broadband network designed to serve as a platform for fully interoperable voice, data and video communications throughout the region.

Objective 3.1: Enhance Operational Communications Capabilities

The emergency response community in the Bay Area has 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. The Bay Area can also re-establish sufficient communications infrastructure within the affected areas of an incident, whatever the cause, to support ongoing life-sustaining activities, provide basic human needs, and transition to recovery.

| PLANNIN | G | |
|---------|--|--|
| 3.1-P1 | Complete an interagency communication process baseline report for each agency, operational area and sub-region that defines processes required to achieve interoperable communications within and between agencies. Reassess each Operational Area's current level of ability in the interoperable voice communications area to determine how the Bay Area region should move forward in planning and investing. | |
| 3.1-P2 | Update as necessary the Bay Area Interoperable Voice Communications Strategic Plan based upon the assessment. | |
| 3.1-P3 | Ensure all Tactical Interoperable Communications Plans (TICPs) in the region are fully up to date. Evaluate the possibility of developing a repository of all Bay Area TICPs for easy access for public safety policy makers. | |
| 3.1-P4 | Ensure after action plans are developed and reviewed at the county/operational area and/or sub-regional and regional level to evaluate the effectiveness of communications mobilization and demobilization activities. | |
| 3.1-P5 | Coordinate with and support BayRICS Authority efforts to integrate broadband data and video communications into regional interoperable communications plan. | |
| 3.1-P6 | Develop COOPs that ensure continued operation of local and regional public safety communications nets during an incident response. | |
| 3.1-P7 | Ensure incident commanders and first responders have awareness of primary and | |

Objective 3.1 Implementation Steps and Resource Elements

| | secondary systems and peripheral equipment for interoperable emergency | | | | | |
|----------|---|--|--|--|--|--|
| | communications. | | | | | |
| ORGANIZ | ATION | | | | | |
| 3.1-01 | Provide limited initial funding for a Bay Area Regional Communications Coordinator position within the region to provide administrative support and to facilitate the regional approach to Interoperable Communications with an emphasis on mission critical voice communication while laying the ground work for future data communications. This person will liaison with the surrounding regions (CAP- BAY) and the State of California on technical issues as necessary. | | | | | |
| 3.1-02 | Ensure incident commanders and first responders have awareness of primary and secondary systems and peripheral equipment for interoperable emergency communications. | | | | | |
| EQUIPME | NT | | | | | |
| 3.1-E1 | Manage, enhance and sustain the digital microwave network and other high speed data transport networks to support interoperability efforts in the Bay Area to link the various interoperability projects across the Bay Area to include redundant systems such as BayLoop. | | | | | |
| 3.1-E2 | Develop a regional fiber optic backhaul network and transition regional interoperable communications infrastructure from microwave to fiber technology. | | | | | |
| 3.1-E3 | Enhance BayWEB coverage through additional communications equipment or backhaul to improve coverage and performance in areas that demonstrate significant need. | | | | | |
| 3.1-E4 | Other authorized communications equipment (e.g., equipment that allows for voice operability/interoperability and data) as mutually agreed upon by all partners. | | | | | |
| 3.1-E5 | Acquire back-up equipment to support continuity of communications operations in the event primary communications systems are destroyed. | | | | | |
| TRAINING | 5 | | | | | |
| 3.1-T1 | Ensure each county/operational area has at least four people trained as Communications Unit Leaders (COML). | | | | | |
| 3.1-T2 | Provide hybrid training on the interoperability communications protocols, tools and efforts to include data, video and multimedia applications and TICPs so as to ensure that responders are prepared to work in the shared environments. | | | | | |
| EXERCISI | ES | | | | | |
| 3.1-Ex1 | Conduct TICP exercises at Operational Area levels. | | | | | |
| 3.1-Ex2 | Use exercise scenarios that test multi-agency communication for the purpose of validating joint standard operating procedures (SOPs) for emergencies and regional communications SOPs. | | | | | |
| 3.1-Ex3 | Continue to test and evaluate the region's first responders in the use of plain language during appropriate incidents. | | | | | |
| 3.1-Ex4 | Conduct exercises to test and evaluate the ability to use back-up communications equipment. | | | | | |

| GOAL 4 | Mission Area(s) | National Priorities | Core Canabilities | State Strategy |
|--|--------------------------------|--|--|---|
| GOAL 4 STRENGTHEN CBRNE/WMD DETECTION, RESPONSE AND DECONTAMINATION CAPABILITIES | Mission Area(s) Response | National Priorities Strengthen CBRNE Detection, Response, and Decontamination Capabilities | Core Capabilities Infrastructure Systems Situational Assessment Operational Coordination On-Scene Security and Protection | State Strategy Goal 5: Strengthen Catastrophic CBRNE and All Hazards Incident Planning, Detection and Response Capabilities |
| | | | Public and Private Services Mass Search and Rescue Environmental Response | |

WMD/CBRNE Overview

The National Fire Protection Association (*NFPA*) 472: Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents identifies the minimum levels of competence required by all responders to emergencies involving HazMat and WMD. *NFPA* 472 is based on the premise that responders should be trained to perform their expected tasks, and that a responder cannot safely and effectively respond to a terrorism or criminal incident involving HazMat or WMD if they do not first understand basic hazardous materials response.¹¹ In addition, the standard redefines the awareness level away from "first responders" and to "persons who, in the course of their normal duties, could be the first on the scene of an emergency involving a hazmat/WMD and who are expected to recognize the presence of hazmat/WMD, protect themselves, call for trained personnel, and secure the area."¹²

¹¹ NFPA®Catalog, "Product Detail: NFPA 472: Standard for Competence of Responders to Hazardous Materials/ Weapons of Mass Destruction Incidents, 2008 Edition" (2012), at http://www.nfpa.org/catalog/product.asp?pid=47208.

¹² Gregory G. Noll, FireEngineering®, "NFPA 472: Developing a Competency-Based Hazmat/WMD Emergency Responder Training Program" (April 1, 2008), at <u>http://www.fireengineering.com/articles/print/volume-161/issue-4/features/nfpa-472-developing-a-competency-based-hazmat-wmd-emergency-responder-training-program.html</u>

NFPA 473: Standard for Competencies for EMS Personnel Responding to Hazardous Materials/Weapons of Mass Destruction Incidents identifies the levels of competence required of emergency medical services (EMS) personnel who respond to hazardous materials incidents. It specifically covers the requirements for basic and advanced life support personnel in the prehospital environment. The Bay Area will strive to adhere to both NFPA standard 472 and 473.

In 2008, the Bay Area developed a CBRNE Assessment and Strategic Plan. In doing so, the Bay Area assessed regional capabilities to respond to a range of CBRNE events, including sabotage, terrorism, and industrial accidents. The Bay Area then developed response benchmarks, identified and prioritized gaps in response capabilities, and developed a 5-year strategic plan that categorizes and prioritizes required resources to eliminate the gaps.

Established in 1998, the National Bomb Squad Commanders Advisory Board (NBSCAB) is an association of bomb squad commanders from around the country. The group provides advice and guidance to federal standard-setting agencies that support bomb squads and serves as the final decision-making authority on guidelines and standards for the public safety bomb squad profession. In coordination with NBSCAB, the FBI provides the standards for bomb squad certification based on formation, training and equipment. Every bomb squad technician attends the FBI's Hazardous Devices School for six weeks of initial training and returns to the school every three years for recertification. Each year there are over 200 hours of refresher training.

An emergency operations center (EOC) is a location from which centralized strategic management of an incident is performed. The EOC is a coordination point, not an incident scene command, control and management center; it does not provide tactical direction to field activities. The EOC may manage multiple incidents that have established incident command posts. The EOC coordinates the delivery of resources to address conditions facing field resources, communicates with the next highest level of level of government to provide information regarding the emergency and the acquisition of resources not readily available within the requesting level of government.

There are numerous EOCs in the Bay Area. Each operational area in the region has an EOC as do several major cities, including the cities of Oakland and San Jose. When activated, an operational area EOC will coordinate mutual aid requests between the county, the operational area member jurisdictions, and the State Regional Emergency Operations Center (REOC). EOCs in the region operate under the SEMS, the NIMS based system for emergency management and its five essential functions: Command or Management, Operations, Planning, Logistics and Finance.

Objective 4.1 Improve Public and Private Services and Resources Management through Fire Incident Response Support

Fire service agencies across the Bay Area can dispatch initial fire suppression resources within jurisdictional response time objectives, and firefighting activities are conducted safely with fire hazards contained, controlled, extinguished, and investigated, with the incident managed in accordance with local and state response plans and procedures.

PLANNING 4.1-P1 Develop plans, programs, and agreements on fire-related public safety protection activities, including region-wide mutual aid response protocols. Develop firefighting plans and procedures to address ICS with a particular focus on 4.1-P2 unified command for multi-agency events and ensure they are integrated with onsite incident management. Develop plans, procedures, and equipment guidelines to support firefighting 4.1-P3 response operations with an emphasis on a CBRNE event. Develop specialized plans for CBRNE events involving mass transit. 4.1-P4 4.1-P5 Ensure plans and agreements are in place for access to aerial units for deployment to roofs or high-rises. Develop plans for establishing alternative water supply. 4.1-P6 **ORGANIZATION** 4.1-01Ensure fire scene investigators are in place where necessary. 4.1-02 Develop unified command structures under NIMS/SEMS/ICS for multi-agency events. EQUIPMENT Acquire and maintain authorized firefighting equipment as agreed to by the region. 4.1-E1 **TRAINING** 4.1-T1 Develop and implement training to enable fire rescue and emergency medical services to recognize the presence of CBRNE materials. 4.1-T2 Conduct training in unified command structure and process under NIMS/SEMS/ICS for multi-agency events. **EXERCISES**

Objective 4.1 Implementation Steps and Resource Elements

4.1-Ex1 Conduct exercises to test and evaluate fire incident response involving multiple disciplines.

Objective 4.2 Strengthen Mass Search and Rescue Capabilities

Public safety personnel in the Bay Area are able to conduct search and rescue operations to locate and rescue persons in distress and initiate community-based search and rescue support-operations across a geographically dispersed area. The region is able to synchronize the deployment of local, regional, national, and international teams to support search and rescue efforts and transition to recovery.

Objective 4.2 Implementation Steps and Resource Elements

| 4.2-P2 Develop plans, protocols and SOPs for search and rescue operations involving most common incidents requiring search and rescue. This should include initial search plans using a column grid layout. 4.2-P3 Develop plans and protocols for 100% of search and rescue task force personnel to be debriefed before leaving the scene. 4.2-P4 Develop plans and protocols for the base of operations to return to original condition within 12 hours from the start of the demobilization process. 4.2-P5 Develop plans and protocols for equipment caches to be re-inventoried and packaged for transport within 12 hours from start of demobilization. ORGANIZATION 4.2-O1 Continue to integrate EMS into search and rescue teams across the region. EQUIPMENT 4.2-E1 Acquire and sustain personal protective equipment for search and rescue teams. 4.2-E2 Acquire and sustain medical equipment for search and rescue teams. 4.2-E3 Acquire and sustain negronal identification systems. TRAINIG 4.2-T1 Update the Bay Area's search and rescue training mandates. 4.2-T2 Conduct training for search and rescue reconnaissance teams to provide preliminary recommendations on search priorities and strategy within 1 hour of an incident. 4.2-T3 Conduct training for the base of operations to return to original conditions within 12 hours from the start of demobilization. 4.2-T4 Conduct training for the base of operations to return to and packaged for transport within 12 hours from the start of demobilization. 4.2-T5 Provide training for large scale search and rescue operations to including gridding the search area. 4.2-T5 Provide search and rescue teams training on the steps necessary to secure a scene during critical incidents. 4.2-T6 Provide rescue systems 1 and 2 level training with an emphasis on identifying and mitigating the creation of hazards during search and rescue operations. | PLANNIN | G | | | | |
|--|----------|---|--|--|--|--|
| most common incidents requiring search and rescue. This should include initial search plans using a column grid layout. 4.2-P3 Develop plans and protocols for 100% of search and rescue task force personnel to be debriefed before leaving the scene. 4.2-P4 Develop plans and protocols for the base of operations to return to original condition within 12 hours from the start of the demobilization process. 4.2-P5 Develop plans and protocols for equipment caches to be re-inventoried and packaged for transport within 12 hours from start of demobilization. ORGANIZATION 4.2-O1 Continue to integrate EMS into search and rescue teams across the region. EQUIPMENT 4.2-E1 Acquire and sustain personal protective equipment for search and rescue teams. 4.2-E2 Acquire and sustain medical equipment for search and rescue teams. 4.2-E3 Acquire and sustain needical equipment for search and rescue teams. 4.2-E4 Acquire and sustain personal identification systems. TRAINIG 4.2-T1 Update the Bay Area's search and rescue training mandates. 4.2-T3 Conduct training for search and rescue reconnaissance teams to provide preliminary recommendations on search priorities and strategy within 1 hour of an incident. 4.2-T3 Conduct training for the base of operations to return to original conditions within 12 hours from the start of demobilization. 4.2-T4 Provide training for large scale search and rescue operations to including gridding the search area. 4.2-T5 Provide search and rescue teams training on the steps necessary to secure a scene during critical incidents. 4.2-T6 Provide rescue systems 1 and 2 level training with an emphasis on identifying and mitigating the creation of hazards during search and rescue operations. | 4.2-P1 | Implement the CBRNE strategic plan as it relates to search and rescue. | | | | |
| be debriefed before leaving the scene. 4.2-P4 Develop plans and protocols for the base of operations to return to original condition within 12 hours from the start of the demobilization process. 4.2-P5 Develop plans and protocols for equipment caches to be re-inventoried and packaged for transport within 12 hours from start of demobilization. ORGANIZATION 4.2-O1 Continue to integrate EMS into search and rescue teams across the region. EQUIPMENT 4.2-E1 Acquire and sustain personal protective equipment for search and rescue teams. 4.2-E2 Acquire and sustain medical equipment for search and rescue teams. 4.2-E3 Acquire and sustain personal identification systems. TRAINING 4.2-T1 Update the Bay Area's search and rescue training mandates. 4.2-T2 Conduct training for search and rescue reconnaissance teams to provide preliminary recommendations on search priorities and strategy within 1 hour of an incident. 4.2-T3 Conduct training for leaves search and rescue operations to including gridding the search area. 4.2-T5 Provide training for large scale search and rescue operations to including gridding the search area. 4.2-T5 Provide search and rescue teams training on the steps necessary to secure a scene during critical incidents. | 4.2-P2 | most common incidents requiring search and rescue. This should include initial | | | | |
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| 4.2-T6 Provide rescue systems 1 and 2 level training with an emphasis on identifying and mitigating the creation of hazards during search and rescue operations. | 4.2-T5 | | | | | |
| | 4.2-T6 | Provide rescue systems 1 and 2 level training with an emphasis on identifying and | | | | |
| EXERCISES | EXERCIS | ES | | | | |

| 4.2 | 2-Ex1 | Update the Bay Area's search and rescue exercise mandates. | | |
|-----|-------|---|--|--|
| 4.2 | 2-Ex2 | Test and evaluate search and rescue capabilities in operational area and regional | | |
| | | exercises. Regional exercises should focus on the coordination, command and | | |
| | | control of multiple search and rescue teams operating in a multi-jurisdictional | | |
| | | incident. | | |

Objective 4.3 Enhance Screening Search and Detection Capabilities

The Bay Area has systems and procedures to rapidly detect, locate and identify chemical, biological, radiological, nuclear, and/or explosive (CBRNE) materials at ports of entry, critical infrastructure locations, public events, and incidents, and can communicate CBRNE detection, identification and warning information to appropriate entities and authorities across the state and at the federal level.

Objective 4.3 Implementation Steps and Resource Elements

| PLANNIN | PLANNING | |
|---------|--|--|
| 4.3-P1 | Prepare and apply for Domestic Nuclear Detection Office Securing the Cities grants in order to design and implement architectures in the Bay Area for the coordinated and integrated screening, search, detection and interdiction of radiological/nuclear materials that are out of regulatory control and may be used as a weapon. | |
| 4.3-P2 | Ensure the region's radiological/nuclear detection plans and protocols are fully integrated with the State's preventive radiological/nuclear detection program. | |
| 4.3-P3 | Develop intelligence and risk-based CBRNE screening, search and detection deployment protocols for major events, mass transit and other high profile events and CIKR. | |
| 4.3-P4 | Develop plans and protocols for the NCRIC to notify appropriate personnel of CBRNE screening, search and detection data and results. | |
| 4.3-P5 | Develop records management protocol at the NCRIC for all CBRNE issues or alarms and their resolution. | |
| 4.3-P6 | Develop plans and protocols to acquire and distribute CBRNE screening, search and detection equipment to large numbers of first responders. | |
| 4.3-P7 | Sustain and update plans and protocols among laboratories across the region for public information regarding CBRNE detection. | |
| ORGANIZ | ATION | |
| 4.3-01 | CBRNE screening, search and detection operator/personnel specially trained and equipped with the ability to recognize potential CBRNE threats through equipment, education, and effective protocols are in place. | |
| 4.3-02 | Ensure laboratories across the region are adequately staffed for agent identification. | |
| EQUIPME | EQUIPMENT | |
| 4.3-E1 | Equipment listed in the CBRNE spending plan. | |
| 4.3-E2 | CBRNE inspection, detection and screening systems equipment for deployment at pre-determined sites across the region such as seaports, airports, major public events, water supply, mass transit, etc. | |

| TRAINING | TRAINING | |
|----------|---|--|
| 4.3-T1 | Appropriate personnel have been identified for CBRNE screening, search and detection training (e.g., law enforcement, transit police and security, fire department, hazardous materials (HazMat), public health, private sector security, and critical infrastructure personnel). | |
| 4.3-T2 | Awareness level training for first responders and CIKR personnel for each of the CBRNE agents. | |
| 4.3-T3 | Training for screening, search and detection operators, laboratory staff, and CIKR protection personnel. | |
| EXERCISI | Exercises | |
| 4.3-Ex1 | A program to test and evaluate new CBRNE screening, search and detection technology in the appropriate operational environment is made part of the overall exercise and evaluation program. | |

Objective 4.4 Strengthen On-Scene Security and Protection through Explosive Device Response Operations

Public safety bomb squads in the Bay Area are able to conduct threat assessments; render safe explosives and/or hazardous devices; and clear an area of explosive hazards in a safe, timely, and effective manner. This involves the following steps in priority order: ensure public safety; safeguard the officers on the scene (including the bomb technician); collect and preserve evidence; protect and preserve public and private property; and restore public services.

Objective 4.4 Implementation Steps and Resource Elements

| PLANNIN | PLANNING | |
|---------|--|--|
| 4.4-P1 | Engage the DHS Office of Bombing Prevention for the purpose of conducting a Multi-Jurisdictional Improvised Explosive Device Security Planning assessment. | |
| 4.4-P2 | Develop and sustain plans, tactics, techniques, and procedures to respond to vehicle borne improvised explosive devices. | |
| 4.4-P3 | Develop and sustain plans, tactics, techniques, and procedures to respond to radio- controlled, improvised explosive devices. | |
| 4.4-P4 | Develop and sustain plans, tactics, techniques, and procedures to respond to suicide bombers. | |
| 4.4-P5 | Using a risk-based approach, evaluate those high-risk or particularly vulnerable locations in the Bay Area that might be beyond a 1-hour response time frame, and assess the potential for acquiring and pre-deploying additional explosive device response equipment to help meet the 1-hour time response frame. | |
| ORGANIZ | ATION | |
| 4.4-01 | Ensure all bomb squads in the Bay Area are accredited by the FBI to standards set by the National Bomb Squad Commanders Advisory Board | |
| 4.4-O2 | Ensure full use of the DHS Office of Bombing Prevention information-sharing portal, the Technical Resource for Incident Prevention (TRIPwire), and the ATF's clearing house (Bomb Arson Tracking System (BATS). | |

| EQUIPMENT | |
|-----------|--|
| 4.4-E1 | Ensure all bomb squad personnel have appropriate personal protective equipment, e.g., ballistic vests and helmets with shields, for use during hand entry operations. |
| 4.4-E2 | Acquire and sustain necessary electronic counter measures and other EDRO equipment. |
| 4.4-E3 | Based on assessment results (4.4-P5), acquire, pre-deploy and sustain necessary explosive device response equipment for high-risk sites outside a 1-hour response time frame. |
| 4.4-E4 | Acquire and sustain equipment needed to ensure that all public safety bomb squads in the region maintain certification, e.g., bomb robots. |
| TRAININ | |
| 4.4-T1 | Provide training to bomb squad personnel on locating and neutralizing secondary devices and booby traps. |
| 4.4-T2 | Ensure all bomb squad training (including techniques, tactics, and procedures) is consistent with and enhances training delivered by the FBI Hazardous Devices School. |
| 4.4-T3 | Ensure effective tactics, techniques, procedures, and training are standardized and shared within the bomb squad community. |
| 4.4-T4 | Deliver training for responding to radio controlled improvised explosive devices. |
| 4.4-T5 | Deliver training for responding to suicide bombers. |
| 4.4-T6 | Deliver training for responding to vehicle borne improvised explosive devices. |
| 4.4-T7 | Provide general public and private sector personnel with bomb threat awareness training as needed. |
| 4.4-T8 | Ensure that all necessary law enforcement personnel are provided sufficient support and opportunities for continuing/refresher education and explosive device response training. |
| EXERCIS | ES |
| 4.4-Ex1 | Ensure explosive device response operations, to include responding to a VBIED, IED, waterborne IED and other scenarios are incorporated into exercise programs. |

Objective 4.5 Improve Public and Private Services and Resources Management through Critical Resource Logistics

The Bay Area has a system to track and manage critical resources and make them appropriately available to incident managers and emergency responders from across the Bay Area to enhance emergency response operations and aid disaster victims in a cost-effective and timely manner.

Objective 4.5 Implementation Steps and Resource Elements

| PLANNING | |
|----------|--|
| 4.5-P1 | In coordination with the State, develop a comprehensive region-wide system of resource typing, inventoried resources and credentialing (Metrics Project) so as to provide emergency managers and incident commanders and first responders the ability to locate, track and request needed resources in a coordinated and effective manner. |

| Exercis | management. |
|----------|---|
| 4.5-T1 | Develop and deliver training in emergency logistics that incorporates linkages among damage/needs assessment, logistics management, and volunteer/donations |
| TRAINING | J J |
| 4.5-E1 | Acquire and sustain CBRNE logistical support equipment. |
| EQUIPME | NT |
| 4.5-02 | Pre-negotiate vendor contracts for critical resources and essential services. |
| 4.5-01 | Ensure a logistics planning manager for regional coordination of logistics operations and planning. |
| ORGANIZ | ATION |
| | Command Center to assist with logistics operations. |
| 4.5-P5 | Develop standardized procedures for utilizing Law Enforcement Online Virtual |
| 4.J-F4 | efficiently and effectively respond to an event. |
| 4.5-P4 | system. Create plans, procedures, and systems to pre-position resources in order to |
| 4.5-P3 | Develop plans and procedures to address activation of the resource management |
| | and/or emergency purchase mechanisms such as credit cards or debit cards. |
| 4.5-P2 | Develop critical resource management plans supported by standing contracts |

Objective 4.6 Enhance Environmental Response/Health and Safety through WMD/HazMat Response and Decontamination Capabilities

Responders in the Bay Area are able to conduct health and safety hazard assessments and disseminate guidance and resources, including deploying HazMat response and decontamination teams, to support immediate environmental health and safety operations in the affected area(s) following a WMD or HazMat incident. Responders are also able to assess, monitor, clean up, and provide resources necessary to transition from immediate response to sustained response and short-term recovery.

Objective 4.6 Implementation Steps and Resource Elements

| PLANNING | |
|--------------|--|
| 4.6-P1 | Develop maintenance and safety plans for regional equipment caches used by |
| | multiple EMD/HazMat teams in the region. |
| 4.6-P2 | Develop SOPs for integration of fire personnel and law enforcement tactical teams. |
| 4.6-P3 | Ensure fire service has plans and procedures in place to decontaminate equipment |
| | and resources during a WMD/HazMat response. |
| 4.6-P4 | Ensure plans and procedures are in place to decontaminate deceased bodies during |
| | a WMD/HazMat response. |
| 4.6-P5 | Integrate the private sector into hazardous materials clean-up/recovery plans. |
| ORGANIZATION | |
| 4.6-01 | Pre-identify resources (personnel and equipment) to provide rapid initial size- up |

| | of hazardous materials incident. |
|----------|--|
| EQUIPME | <u>.</u> |
| 4.6-E1 | Acquire equipment for WMD/HazMat teams using CalEMA, FIRESCOPE HazMat Team Standardized Equipment List and the Bay Area CBRNE Plan as guidelines. |
| 4.6-E2 | Acquire tools that may be used predominantly in the field by WMD/HazMat teams to generate effective plume modeling. |
| TRAINING | J. |
| 4.6-T1 | Ensure that all appropriate personnel are trained to NFPA 472 standard and provide refresher training as needed. |
| 4.6-T2 | Ensure that all appropriate personnel are trained to NFPA 473 standard and provide refresher training as needed. |
| 4.6-T3 | Ensure hazmat team(s) trains regularly with EMS to ensure proper coordination of victim care post-decontamination (identification of substance, administration of antidotes, etc.). |
| 4.6-T4 | Develop and implement training related to detection, identification and reporting of hazardous material. |
| 4.6-T5 | Provide training to WMD/Haz/Mat teams on the use of plume modeling tools to improve response time and effectiveness in plume modeling. |
| 4.6-T6 | Conduct training for integration of fire personnel and law enforcement tactical team response operations. |
| 4.6-T7 | Conduct training for fire service on procedures to decontaminate equipment and resources during a WMD/HazMat response. |
| 4.6-T8 | Provide WMD/HazMat response and mitigation training to law enforcement personnel as needed. |
| 4.6-T9 | Conduct joint public and private sector training on the transition from response to recovery and clean up following a WMD/HazMat incident. |
| 4.6-T10 | Training for WMD/HazMat teams on proper use and understanding of the radioactive detection methods and equipment currently in use. |
| 4.6-T11 | Train Radiation Safety Officers for Type 1 teams to oversee the radiation equipment and standardize the radiation training each team as well as other mutual aid hazmat technicians. |
| EXERCIS | ES |
| 4.6-Ex1 | Test and evaluate the use of plume modeling tools to measure improvements in response time and effectiveness in plume modeling. |
| 4.6-Ex2 | Exercise CBRNE/WMD/HazMat capabilities and equipment into regional and statewide exercise opportunities. |

Objective 4.7 Strengthen Operational Coordination Capabilities

The Bay Area has a fully integrated response system through a common framework of the Standardized Emergency Management System, Incident Command System and Unified Command including the use of emergency operations centers, incident command posts, emergency plans and standard operating procedures, incident action plans and the tracking of onsite resources in order to manage major incidents safely, effectively and efficiently. EOCs in the Bay Area can effectively plan, direct and coordinate information and activities internally within EOC functions, and externally with other multi-agency coordination entities, command posts and other agencies to effectively coordinate disaster response operations.

Objective 4.7 Implementation Steps and Resource Elements

| PLANNING | | |
|----------|---|--|
| 4.7-P1 | Update or develop jurisdiction emergency operations plans (EOPs) that are compatible and integrate support for unified command during multi agency or multi-jurisdictional operations. | |
| 4.7-P2 | Ensure resource and personnel tracking system(s) is place in coordination with the critical resource logistics and distribution objective. | |
| 4.7-P3 | Develop policies and procedures for utilizing the Law Enforcement Online Virtual Command Center capability at EOCs and other command posts. | |
| 4.7-P4 | Develop regional plans and procedures to address ICS with a particular focus on unified command for multi-agency events and ensure they are integrated with onsite incident management. | |
| 4.7-P5 | Establish and implement an order of command succession or continuity consistent with NIMS/SEMS. | |
| 4.7-P6 | Ensure that primary and secondary means to establish and maintain EOC communication services through the incident timeline are in place, can be activated promptly, and can continue to operate at acceptable levels. | |
| 4.7-P7 | Ensure Department Operations Centers (DOCs) and EOCs have IT staffing requirements in their activation plans. | |
| 4.7-P8 | Ensure DOC and EOC staff coordinate and plan with general services administration personnel for long term support of operations center support. | |
| 4.7-P9 | Revise EOC activations plans as necessary to include 24 hour staffing for finance support during an emergency. | |
| 4.7-P10 | Ensure EOCs facilitate the regional reporting of activities, coordination of operational activities and the development of a common operating picture, during an incident and incorporate their communications requirements into local operational communications interoperability plans. | |
| 4.7-P11 | Ensure that medical and health agencies and personnel are fully integrated in emergency operations plans and standard operating procedures at the regional, operational area, local and field levels. | |
| ORGANIZ | ORGANIZATION | |
| 4.7-01 | Develop or maintain Type I or II or III or IV incident management team. | |
| 4.7-02 | Establish SOPs for addressing staffing issues that area commands cannot address during an incident. | |

| EQUIPMENT | | |
|----------------|---|--|
| - | 4.7-E1 Ensure DOCs and EOCs have sufficient information technology equipment and | |
| H ./-L1 | software (WebEOC) that is standardized/interoperable | |
| 4.7-E2 | Ensure EOCs have operational and redundant communications equipment. | |
| 4.7-E3 | Acquire and sustain back up power equipment for EOCs as needed. | |
| 4.7-E4 | Acquire and sustain physical security enhancement equipment for the EOCs. | |
| 4.7-E5 | Acquire and sustain inspection and screening systems at the EOC as necessary. | |
| TRAININ | G | |
| 4.7-T1 | Ensure all appropriate personnel are trained in NIMS/SEMS incident command and unified command. | |
| 4.7-T2 | Train personnel in accordance with NIMS/SEMS typing. | |
| 4.7-T3 | Establish and maintain ICS training benchmarks and metrics and integrate them with relevant regional training plans. | |
| 4.7-T4 | Provide training on the use of the Law Enforcement Online Virtual Command Center capability. | |
| 4.7-T5 | Provide FEMA Independent Study Program: IS 700-NIMS, An Introduction; FEMA Independent Study Program: IS 800-National Response Plan, An Introduction; FEMA Independent Study Program: IS 275-EOC Management and Operations training. | |
| 4.7-T6 | Provide FEMA Independent Study Program: IS 100-Introduction to Incident Command System; FEMA Independent Study Program: IS 200-ICS for Single Resources and Initial Action Incident training. | |
| 4.7-T7 | Brief or train local chief executives and other key officials of the jurisdiction in the jurisdiction's command, control and coordination plans for large-scale emergencies. | |
| 4.7-T8 | Establish and train appropriate personnel on standardized reporting format for area commands to utilize during briefings with EOCs and DOCs. | |
| 4.7-T9 | Provide training to EOC personnel on the NIMS/ICS/SEMS and overall EOC functions and responsibilities in an emergency. | |
| EXERCIS | ES | |
| 4.7-Ex1 | Test to ensure all on-site incident management activities are coordinated through the Incident Command System with a focus on testing and evaluating unified command. | |
| 4.7-Ex2 | Test whether formal operational briefings are conducted at the start of each operational period. | |
| 4.7-Ex3 | Test whether IAP is re-assessed, revised, distributed, and briefed at least at the start of each new operational period. | |
| 4.7-Ex4 | Develop exercise program to evaluate the effectiveness EOC incident management processes; communications and standards, and exercise programs for emergency operations plans, policies and procedures. | |
| 4.7-Ex5 | Test and evaluate the integration of medical and health agencies and personnel in emergency operations plans and standard operating procedures at the regional, operational area, local and field levels. | |

Objective 4.8 Improve Environmental Response/Health and Safety through Responder Safety and Health

The Bay Area can reduce the risk of illnesses or injury to first responders, first receivers, medical facility staff members, 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.

Objective 4.8 Implementation Steps and Resource Elements

| PLANNING | | |
|-----------|--|--|
| 4.8-P1 | Develop and adopt agency/jurisdiction safety and health plans and program(s). | |
| 4.8-P2 | Conduct a detailed analysis of relevant planning scenarios to ensure that all | |
| | workers are protected while performing tasks from all hazards. | |
| ORGANIZ | ORGANIZATION | |
| 4.8-01 | Establish plans and procedures for identifying sources of additional equipment and | |
| | expertise if the safety and health program is overwhelmed. | |
| EQUIPMENT | | |
| 4.8-E1 | Acquire and sustain authorized personal protective equipment as agreed to by the | |
| | region to include SCBA, auto injectors, etc. | |
| TRAINING | TRAINING | |
| 4.8-T1 | Provide training on acquired PPE. | |
| EXERCISI | EXERCISES | |
| 4.8-Ex1 | Integrate responder health and safety into exercises to develop and maintain | |
| | appropriate health and safety knowledge and expertise for responders. | |
Objective 4.9 Enhance On-Scene Security and Protection through Emergency Public Safety and Security Response

Public safety agencies within the Bay Area are 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.

Objective 4.9 Implementation Steps and Resource Elements

| PLANNING | | |
|----------|--|--|
| 4.9-P1 | Develop plans and procedures for a Type 1 regional mobile field force (MFF) under NIMS to support emergency public safety and security. | |
| 4.9-P2 | Develop plans and systems to maintain accountability of public safety personnel, track incident locations, and track resources. | |
| 4.9-P3 | Develop activation and deployment plans for public safety and security with plans targeting 50 percent of total uniformed (patrol) staff of a jurisdiction having primary responsibility for the incident. | |
| 4.9-P4 | Develop plans and protocols for alternate facilities for court services, prisoner holding and housing, prisoner transport, criminal intake and other criminal justice services. | |
| 4.9-P5 | Ensure plans for sheltering, housing, and feeding law enforcement and other public safety personnel are in place | |
| ORGANIZ | ATION | |
| 4.9-01 | Ensure MFF meets NIMS type 1 standards to include a tactical team (platoon) to include four 12-person squads and an officer in charge (OIC) and a Deputy OIC. Each squad should include a supervisor. | |
| EQUIPME | NT | |
| 4.9-E1 | Acquire and sustain MFF equipment to include protective clothing, soft body armor (helmet and face shield, gloves, shin guards), communications equipment, personal hydration, riot control gear, video equipment, mass arrest kits, and other necessary equipment. | |
| 4.9-E2 | Acquire and sustain power and traffic control equipment. | |
| TRAINING | | |
| 4.9-T1 | Provide training to MFF to include, crowd control, traffic management, on-site security, etc. | |
| 4.9-T2 | Develop and conduct public safety and security training programs to include joint local, state and federal teams pursuant to ESF 13 under the NRF. | |
| EXERCISE | Exercises | |
| 4.9-Ex1 | Test and evaluate MFF and such other public safety and security teams' activation and deployment capabilities. | |
| 4.9-Ex2 | Test and evaluate criminal justice re-location plans. | |

| GOAL 5 | Mission Area(s) | National Priorities | Public Health and Target Capabilities | State Strategy |
|--------------------------------------|--------------------|-----------------------------|---|--------------------------------|
| ENHANCE MEDICAL AND PUBLIC HEALTH | Protection | Strengthen Medical Surge | Emergency Triage and Pre-Hospital | Goal 6: Improve Medical and |
| PREPAREDNESS | Response | and Mass Prophylaxis | Treatment | Health Preparedness |
| | Recovery | Capabilities | Medical Surge | |
| | | | Medical Countermeasure Dispensing | |
| | | | Medical Materiel Management and Distribution | |
| | | | Non-Pharmaceutical Interventions | |
| | | | Laboratory Testing | |
| | | | Public Health surveillance and Epidemiological Investigation | |
| | | | Fatality Management | |

Public Health and Medical Background

Health and medical preparedness is a fundamental component of homeland security. This fact is evidenced by the 2001 anthrax attacks, the outbreak of Severe Acute Respiratory Syndrome (SARS), and the 2009 H1N1 influenza outbreak. Given such risks, the Bay Area must ensure its medical and public health infrastructure is capable of protecting against, responding to, and recovering from such events.

At the National level, the Department of Health and Human Services has led the way with the creation of the National Health Security Strategy (NHSS), released in December 2009. The NHSS is designed to achieve two overarching goals:

- Build community resilience, and
- Strengthen and sustain health and emergency response systems.

As with the *Bay Area Homeland Security Strategy*, the NHSS is designed around building health and medical capabilities in order to achieve strategic goals and objectives based on the elements

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of plans, organization, equipment, training, and exercises. As the Federal Government continues to develop implementation plans for the NHSS, the Bay Area will track federal guidance and integrate, where appropriate, such guidance into local and regional health and medical preparedness efforts.

In enhancing medical and public health preparedness, the Bay Area seeks to develop a comprehensive and integrated system of first responders, hospitals, clinics, and public health departments across the region. This includes fully integrating the Metropolitan Medical Response System (MMRS) in the Bay Area.

Finally, the region's CBRNE plan also plays a critical role relative to this strategic goal as several objectives within the plan cover medical and health preparedness concerning a CBRNE event. Jurisdictions and sub-regions should therefore, look to the CBRNE plan for additional guidance in this area.

Objective 5.1 Enhance Emergency Triage and Pre-Hospital Treatment

Emergency medical services (EMS) resources across the Bay Area can effectively and appropriately be dispatched (including with law enforcement tactical teams) to provide prehospital 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.

| PLANNING | | |
|----------|---|--|
| 5.1-P1 | Update local mass casualty plans and integrate local plans with the California Disaster Medical Operations Manual. | |
| 5.1-P2 | Produce written plans and procedures for coordination of the local EMS system with the State and National Disaster Medical System (NDMS). | |
| 5.1-P3 | Develop protocols and procedures for tracking triage and pre-hospital treatment response staff and equipment during day-to-day operations, as well as catastrophic incidents. | |
| EQUIPME | NT | |
| 5.1-E1 | Acquire and sustain emergency medical equipment to include patient tracking systems and PPE. | |
| TRAINING | | |
| 5.1-T1 | Provide training on the California Public Health and Medical Emergency Operations Manual. | |
| 5.1-T2 | Develop and implement multi-disciplinary training programs for EMS personnel, based on local risk vulnerability assessments and lessons learned. | |
| 5.1-T3 | Conduct training for EMS and tactical team personnel in joint response events. | |
| 5.1-T4 | Conduct training for dispatch personnel in protocols and procedures for dispatch during catastrophic events. | |
| 5.1-T5 | Provide the Tactical Emergency Casualty Care Course to EMS personnel. | |

Objective 5.1 Implementation Steps and Resource Elements

| EXERCISI | EXERCISES | | |
|----------|---|--|--|
| 5.1-Ex1 | Develop and implement multi-disciplinary exercises to test and evaluate the ability of EMS agencies to move and track large numbers of patients during a multi- jurisdictional incident consistent with the California Disaster Medical Operations Manual. | | |
| 5.1-Ex2 | Conduct joint EMS and law enforcement tactical team exercises to test and evaluate the ability to operate jointly in a warm zone. | | |

Objective 5.2 Increase Medical Surge

The Bay Area is able to provide adequate medical evaluation and care during incidents that exceed the limits of the normal medical infrastructure of an affected community or the region. The healthcare system in the region is able to survive a hazard impact and maintain or rapidly recover operations that were compromised. Those injured or ill from a medical disaster and/or mass casualty event in the Bay Area are rapidly and appropriately cared for. Continuity of care is maintained for non-incident related illness or injury.

Objective 5.2 Implementation Steps and Resource Elements

| PLANNING | Ĵ | | |
|----------|---|--|--|
| 5.2-P1 | Develop and maintain medical surge plans that integrate with State and hospital plans including patient distribution plans. | | |
| 5.2-P2 | Develop and maintain medical mutual aid agreements for medical facilities and equipment. | | |
| 5.2-P3 | Develop and maintain surge capacity plans for acute care hospitals. | | |
| 5.2-P4 | Update local mass casualty plans and integrate local plans with the California Disaster Health Operations Manual. | | |
| EQUIPME | NT | | |
| 5.2-E1 | Acquire and sustain medical equipment, supplies and pharmaceuticals to support medical surge operations. | | |
| TRAINING | TRAINING | | |
| 5.2-T1 | Provide training on the California Public Health and Medical Emergency Operations Manual. | | |
| 5.2-T2 | Provide training on the California Healthcare Surge Standards and Guidelines for healthcare facilities. | | |
| EXERCISE | Exercises | | |
| 5.2-Ex1 | Test and evaluate medical surge plans. | | |

Objective 5.3 Strengthen Medical Countermeasure Dispensing

With the onset of an incident, the Bay Area is able to provide appropriate medical countermeasures (including vaccines, antiviral drugs, antibiotics, antitoxin, etc.) in support of treatment or prophylaxis (oral or vaccination) to the identified population in accordance with local, state and federal public health guidelines and/or recommendations.

Objective 5.3 Implementation Steps and Resource Elements

| PLANNING | | | |
|----------|---|--|--|
| 5.3-P1 | Develop and maintain plans, procedures, and protocols for medical countermeasure dispensing. | | |
| 5.3-P2 | Develop procedures for obtaining medical countermeasure dispensing supplies from the receipt, staging, and storage (RSS) sites in coordination with the Medical Supplies and Distribution Capability. | | |
| 5.3-P3 | Develop programs to ensure security of medical countermeasure dispensing during dispensing operations. | | |
| 5.3-P4 | Develop processes to ensure that first responders, public health responses, critical infrastructure personnel, and their families receive prophylaxis prior to POD opening. | | |
| ORGANIZ | ATION | | |
| 5.3-01 | Develop a medical countermeasure dispensing inventory management system. | | |
| EQUIPME | EQUIPMENT | | |
| 5.3-E1 | Caches of medical supplies and strategic national stockpile (SNS) dispensing and distribution equipment. | | |
| TRAINING | | | |
| 5.3-T1 | Develop and implement training for medical countermeasure dispensing operations. | | |
| 5.3-T2 | Develop and implement training for medical countermeasure dispensing repacking, distribution, and dispensing, security of mass prophylaxis, and for mass prophylaxis inventory management. | | |
| EXERCISE | Exercises | | |
| 5.3-Ex1 | Conduct medical countermeasure dispensing exercises to test and evaluate all aspects of medical countermeasure dispensing, including distribution and dispensing, tactical communications, public information and communication, security, inventory management, and distribution. | | |

Objective 5.4 Improve Medical Materiel Management and Distribution

The Bay Area is able to acquire, maintain (e.g., cold chain storage or other storage protocol), transport, distribute, and track medical materiel (e.g., pharmaceuticals, gloves, masks, and ventilators) during an incident and recover and account for unused medical materiel, as necessary, after an incident.

Objective 5.4 Implementation Steps and Resource Elements

| PLANNIN | PLANNING | | |
|----------|--|--|--|
| 5.4-P1 | Develop plans for establishing staging areas for internal and external medical response personnel, equipment, and supplies. | | |
| 5.4-P2 | Establish strategies for transporting materials through restricted areas, quarantine lines, law enforcement checkpoints and so forth that are agreed upon by all affected parties. | | |
| 5.4-P3 | Obtain demographic/health-related data to plan for the types of medications, durable medical equipment, or consumable medical supplies that may need to be provided during an event (including supplies needed for populations requiring functional or medical care). | | |
| TRAINING | | | |
| 5.4-T1 | Provide training on the demobilization of medical supplies. | | |
| 5.4-T2 | Provide training in medical supplies management and distribution in the pre hospital triage environment. | | |
| 5.4-T3 | Provide training on CDC supply tracking software. | | |
| EXERCISE | Exercises | | |
| 5.4-Ex1 | Exercise plans procedures and systems for transporting and tracking medical material assets with specific focus on the demobilization of medical supplies. | | |

Objective 5.5 Strengthen Non-Pharmaceutical Interventions

Public health agencies in the Bay Area are able to recommend to the applicable lead agency (if not public health) and implement, if applicable, strategies for disease, injury, and exposure control. Strategies include the following: isolation and quarantine, restrictions on movement and travel advisory/warnings, social distancing, external decontamination, hygiene, and precautionary protective behaviors. Legal authority for those applicable measures is clearly defined and communicated to all responding agencies and the public. Logistical support is provided to maintain measures until danger of contagion has elapsed.

Objective 5.5 Implementation Steps and Resource Elements

| PLANNING | |
|----------|---|
| 5.5-P1 | Ensure legal authority is in place for authorizing isolation and quarantine. |
| 5.5-P2 | Develop and maintain plans for coordinating quarantine activation and enforcement with public safety and law enforcement. |

| ORGANIZATION | | | |
|--------------|---|--|--|
| 5.5-01 | Establish systems, programs, and resources for implementing isolation and quarantine. | | |
| TRAINING | TRAINING | | |
| 5.5-T1 | Develop and implement exercises for isolation and quarantine. | | |
| Exercises | | | |
| 5.5-Ex1 | Exercises to test plans for implementing isolation and quarantine. | | |

Objective 5.6 Improve Laboratory Testing

Laboratories in the Bay Area are able to conduct rapid and conventional detection, characterization, confirmatory testing, data reporting, investigative support, and laboratory networking to address actual or potential exposure to all-hazards. Confirmed cases and laboratory results are reported immediately to all relevant public health, food regulatory, environmental regulatory, and law enforcement agencies in support of operations and investigations.

Objective 5.6 Implementation Steps and Resource Elements

| ORGANIZATION | | | |
|--------------|---|--|--|
| 5.6-P1 | Identify, establish and maintain working collaboration with all Laboratory Response Network (LRN) Sentinel and LRN Clinical Chemistry laboratories. | | |
| 5.6-P2 | Develop and maintain an accurate and current database of contact information and capability for all the Laboratory Response Network (LRN) Sentinel and LRN Clinical Chemistry laboratories. | | |
| EQUIPME | EQUIPMENT | | |
| 5.6-E1 | Laboratory equipment to test and evaluate CBRNE agents. | | |
| TRAINING | | | |
| 5.6-T1 | Train all LRN Sentinel laboratories in the use of LRN biological agent ruled-out protocols, specimens or isolate referral responsibilities and notification algorithms. | | |
| EXERCISES | | | |
| 5.6-Ex1 | Exercises to test select LRN sentinel and LRN clinical chemistry laboratories | | |

Objective 5.7 Strengthen Public Health Surveillance and Epidemiological Investigation

Bay Area public health agencies have the ability to create, maintain, support, and strengthen routine surveillance and detection systems and epidemiological investigation processes, as well as to expand these systems and processes in response to incidents of public health significance. This includes the ability to identify potential exposure to disease, mode of transmission, and agent.

| PLANNING | PLANNING | | |
|-----------|--|--|--|
| 5.7-P1 | Develop plans, procedures, and protocols for investigating a potential disease outbreak. | | |
| 5.7-P2 | Develop and maintain procedures for identification of disease, vector and epidemic. | | |
| TRAINING | TRAINING | | |
| 5.7-T1 | Training for staff on activities required to conduct epidemiological surveillance and detection including exposure and disease detection, surveillance, analysis, reporting, and use of equipment. | | |
| EXERCISES | | | |
| 5.7-Ex1 | Exercises to evaluate epidemiological surveillance and detection. | | |

Objective 5.7 Implementation Steps and Resource Elements

Objective 5.8 Enhance Fatality Management

Bay Area agencies, e.g., law enforcement, public health, healthcare, emergency management, and medical examiner/coroner) are able to coordinate (to ensure the proper recovery, handling, identification, transportation, tracking, storage, and disposal of human remains and personal effects; certify cause of death; and facilitate access to mental/ behavioral health services to the family members, responders, and survivors of an incident.

Objective 5.8 Implementation Steps and Resource Elements

| PLANNIN | PLANNING | | |
|----------|---|--|--|
| 5.8-P1 | Update the Bay Area Regional Catastrophic Incident Mass Fatality Plan. | | |
| 5.8-P2 | Ensure plans are in place to allow for the contracting or use of private sector resources in support of mass fatality to include the use of just in time contracts for body storage, etc. | | |
| EQUIPME | NT | | |
| 5.8-E1 | Acquire and sustain mass fatality equipment as called for in the Bay Area Regional Catastrophic Incident Mass Fatality Plan. | | |
| 5.8-E2 | Acquire authorized and needed body storage equipment as agreed to by the region. | | |
| TRAINING | TRAINING | | |
| 5.8-T1 | Provide training on the implementation of the Bay Area Regional Catastrophic Incident Mass Fatality Plan. | | |
| 5.8-T2 | Conduct training on mass fatality equipment. | | |
| EXERCISE | Exercises | | |
| 5.8-Ex1 | Conduct exercises to test and evaluate the Bay Area Regional Catastrophic Incident Mass Fatality Plan across all phases – trauma, contamination and pandemic. | | |

| GOAL 6 | Mission Area(s) | National Priorities | Core Capabilities | State Strategy |
|--------------|--------------------|------------------------|----------------------|-------------------|
| STRENGTHEN | Response | Strengthen | Community | Goal 4: Enhance |
| EMERGENCY | Ĩ | Planning and | Resilience | Planning and |
| PLANNING AND | Recovery | Citizen | | Community |
| CITIZEN | | Preparedness | Public Information | Preparedness |
| PREPAREDNESS | | Capabilities | and Warning | Capabilities |
| CAPABILITIES | | - | | - |
| | | | Critical | |
| | | | Transportation | |
| | | | | |
| | | | Public and Private | |
| | | | Resources | |
| | | | | |
| | | | Mass Care | |
| | | | Services | |

Community Resiliency

The Bay Area has long viewed emergency and community planning and preparedness as a core element of homeland security. In 2007-2008 the region developed a community preparedness program guide to help identify local best practices concerning social marketing programs as they relate to community preparedness, determine national best practices for citizen preparedness programs, and assess the effectiveness of the various characteristics of community preparedness programs available in the Bay Area. The program guide is a valuable tool to assist the region, sub-regions and jurisdictions in their development of community preparedness programs for all hazards. The program guide also serves as a key element and implementation tool for each of the objectives under this Strategic goal.

Effectively communicating threat or disaster risk, warnings, protective actions, and other information to the community continues to gain prominence as a critical element of keeping communities safe before, during, and after disasters. While researchers and practitioners have made significant strides towards identifying risks and establishing new technology protocols and solutions, the challenge of communicating alerts, warnings, and protective actions across multiple independent jurisdictions with a widely diverse population such as those in the Bay Area still needs to be addressed within the region.

In 2012, the Bay Area developed a comprehensive emergency public information and warning assessment and strategic plan. That plan provides the overall blueprint for how the region can strengthen its emergency public information and warning capability. The *Bay Area Homeland Security Strategy* tracks and reinforces what the emergency public information and warning strategic plan consists of in more detail.

Objective 6.1 Strengthen Emergency Public Information and Warning Capabilities

The Bay Area has an interoperable and standards-based system of multiple emergency public information and warning systems that allows Bay Area leaders and public health and safety personnel to disseminate prompt, clear, specific, accurate, and actionable emergency public information and warnings to all affected members of the community in order to save lives and property concerning known threats or hazards.

Objective 6.2 Implementation Steps and Resource Elements

| PLANNING | 3 |
|-----------------------|---|
| 6.1-P1 | Develop a process for joint regional procurement of future emergency public information and warning tools and for sustaining current emergency public |
| | information and warning copabilities. Ensure all equipment purchases are compliant |
| | with the Common Alerting Protocol (CAP). |
| 6.1-P2 | Review and update Operational Area databases of partner community based |
| | organizations and advocacy groups for populations with access and functional |
| | needs and/or limited English proficiency. |
| 6.1-P3 | Enhance local and regional plans/programs for Joint Information Center (JIC) |
| | operations, and develop network-based "virtual" JIC support. |
| 6.1-P4 | Update the Regional Emergency Coordination Plan (RECP) and develop an annex |
| | to the RECP focused on a regional concept of operations (ConOps) for addressing |
| | emergency public information and warning and establishing and operating a |
| (1 D5 | regional JIC based on the SEMS, NIMS and the ICS. |
| 6.1-P5 | Update local Emergency Operation Plans (EOPs) on to include an emergency public information and warning appay or amondment(s) to each base plan |
| 6.1-P6 | public information and warning annex or amendment(s) to each base plan. Develop policy and guidance for social media use in emergency public information |
| 0.1-10 | and warning and formally integrate social media activities into response plans. |
| 6.1-P7 | Develop protective actions for all potential Bay Area hazards and develop science- |
| 01117 | based warning message templates to communicate effective protective actions to |
| | the public. |
| 6.1-P8 | Develop plans and procedures for providing timely and effective warning |
| | information to isolated populations in the Bay Area. |
| 6.1-P9 | Develop or determine a regional shared "clearinghouse" server that uses the CAP |
| | standard to activate multiple Operational Area warning output systems (sirens, |
| | telephone, email, etc.) concurrently with a common message. |
| 6.1-P10 | Implement the federal Integrated Public Information Warning System (IPAWS) and |
| <pre>< 1 D11</pre> | Commercial Mobile Alerting System (CMAS) across the Bay Area. |
| 6.1-P11 | Obtain a State of California agreement regarding areas and types of warnings each agency will issue using IPAWS. |
| ORGANIZA | |
| 6.1-01 | Develop regional policy and program structures and assign a regional program |
| 0.1-01 | manager for emergency public information and warning initiatives, and programs. |
| 6.1-02 | Develop an MOU/MOA template for Operational Areas to customize and establish |
| 0.1 02 | agreements with partner organizations and advocacy groups. |
| 6.1-03 | Establish a regional social media subcommittee to develop social media guidance, |

| | policy, and integration frameworks. |
|----------|--|
| 6.1-04 | Establish a regional operational support cell for effective public warning to include |
| | necessary MOUs and ConOps. |
| 6.1-05 | Execute an MOA with FEMA for IPAWS access. |
| EQUIPME | NT |
| 6.1-E1 | Implement a virtual platform (e.g., UASI web platform) so emergency public information providers and policy makers (e.g., Bay Area Emergency Public Information Network and Emergency Public Information and Warning Work Group) have a mechanism to collaborate. |
| 6.1-E2 | Acquire and sustain equipment required to warn isolated populations (e.g., variable message signs to warn transient/commuter populations; sirens and public announcement systems to warn homeless; tone alert radios. |
| 6.1-E3 | Acquire and sustain equipment, laptops, tablets and other computing devices, to enable regional Warning Support Cell personnel connectivity to existing warning systems across the region. |
| 6.1-E4 | Procure equipment for Operational Areas necessary for integrating with the regional clearinghouse CAP server. |
| 6.1-E5 | Obtain IPAWS-certified warning control software packages for Operational Areas. |
| TRAINING | |
| 6.1-T1 | Subscribe to available newsletters (online or print) and/or magazines, social media, and online networks (e.g., Lessons Learned Information Sharing) in order to review and train on ongoing EPI&W issues, best practices, lessons learned, etc. |
| 6.1-T2 | Provide joint training to community based organization (CBO) public information officers and Operational Area emergency management officials on the protocols and procedures for the handling and dissemination of emergency public information and warning to CBO members/constituents. |
| 6.1-T3 | Promote educational outreach to isolated populations campaign general preparedness and provide awareness training on available resources from the community (e.g., register/subscribe to alert notification systems). |
| 6.1-T4 | Have all authorized warning originators complete a two-hour online course on IPAWS procedures and appropriate use. |
| 6.1-T5 | Deliver training courses called for in the Bay Area Emergency Public Information and Warning Strategic Plan (Goal 4, Objective 4.1) |
| 6.1-T6 | Provide training in social media use, and establish a regional platform to exchange best practices and develop regional awareness around existing social media capabilities. |
| 6.1-T7 | Deliver the California's Senior Officials Workshop to elected and senior officials across the region with an emphasis on emergency public information and warning. |
| EXERCISE | ES |
| 6.1-Ex1 | Conduct a regional exercise to evaluate JIC operations. |
| 6.1-Ex3 | Conduct exercise(s) that involve those with access and functional needs and isolated populations to evaluate emergency public information and warning capabilities to reach these groups. |
| 6.1-Ex3 | Conduct local and regional exercises to test and evaluate regional Warning Support Cell capabilities |

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| 6.1-Ex4 | Involve local media in exercises to educate all participants on emergency public | | |
|---------|--|--|--|
| | information and warning roles, responsibilities and capabilities. | | |
| 6.1-Ex5 | Conduct coordinated testing of warning systems from across the region. | | |

Objective 6.2 Enhance Critical Transportation Capabilities

The Bay Area can provide transportation (including infrastructure access and accessible transportation services) for response priority objectives, including the evacuation of people, including those with access and functional needs, and animals, and the delivery of vital response personnel, equipment, and services into the affected incident areas to save lives and to meet the needs of disaster survivors.

Objective 6.2 Implementation Steps and Resource Elements

| PLANNING | | |
|-----------|---|--|
| 6.2-P1 | Update, as needed, the Bay Area Regional Catastrophic Earthquake Mass Transportation/Evacuation Plan. | |
| 6.2-P2 | Evaluate the threats and hazards that may cause the need for large evacuations or sheltering in-place and determine evacuation/shelter zones (the areas where people must evacuate from or shelter within) based upon the potential consequences caused by the incident. | |
| 6.2-P3 | Develop plans and procedures for evacuation/shelter-in place of access and functional needs populations. | |
| 6.2-P4 | Develop plans and procedures for sheltering in place during a CBRNE event. | |
| 6.2-P5 | Develop plans and procedures for evacuation/shelter-in place of companion animals. | |
| ORGANIZ | ATION | |
| 6.2-01 | Develop and distribute public education materials on evacuation/shelter-in-place preparation, plans, and procedures for natural hazards and CBRNE events. | |
| 6.2-02 | Pre-arrange contracts and agreements to ensure provision of transportation vehicles (land, air and sea) and drivers during an incident requiring mass evacuations. | |
| EQUIPMENT | | |
| 6.2-E1 | Traffic control equipment (barriers, cones, directional signals). | |
| TRAINING | | |
| 6.2-T1 | Provide training on the implementation of the Bay Area Regional Catastrophic Earthquake Mass Transportation/Evacuation Plan. | |
| 6.2-T2 | Develop and implement programs to train local citizens on evacuation, reentry and shelter-in place processes. | |
| EXERCISES | | |
| 6.2-Ex1 | Conduct exercises to test and evaluate the Bay Area Regional Catastrophic Earthquake Mass Transportation/Evacuation Plan. | |

Objective 6.3 Improve Mass Care

Mass care services, including sheltering, feeding, and bulk distribution, are rapidly, effectively and efficiently provided for the impacted population, including those with access and functional needs, in a manner consistent with all applicable laws, regulations and guidelines.

Objective 6.3 Implementation Steps and Resource Elements

| PLANNING | | | |
|----------|--|--|--|
| 6.3-P1 | Update, as needed, the Regional Catastrophic Mass Care and Sheltering Plan. Ensure the American Red Cross is fully accounted for in planning aspects. | | |
| 6.3-P2 | Develop plans and procedures for mass care involving a CBRNE incident. | | |
| 6.3-P3 | Develop mass care plans at the operational area level that integrate and account for those individuals and families with access and functional needs consistent with state and federal guidelines such as the Americans with disabilities Act. | | |
| ORGANIZ | ATION | | |
| 6.3-01 | Develop pre-designated vendor agreements, blanket purchase agreements, or MOAs for critical mass care resources (pre-packaged meals ready to eat and ice). | | |
| 6.3-02 | Develop public education materials concerning mass care services. | | |
| 6.3-03 | Conduct an inventory of available shelter space for people and companion animals. | | |
| EQUIPME | EQUIPMENT | | |
| 6.3-E1 | Acquire, sustain and store directly or through partners mass care equipment such as cots (standard and accessible), blankets, feeding equipment (e.g., food storage containers), food and beverages, first-aid supplies, and animal supplies, etc. | | |
| TRAINING | | | |
| 6.3-T1 | Provide mass care training to include a focus on those with access and functional needs. | | |
| EXERCISI | ES | | |
| 6.3-Ex1 | Conduct exercises to test and evaluate the implementation of the Regional Catastrophic Mass Care and Sheltering Plan. Ensure the American Red Cross is an exercise participant. | | |
| 6.3-Ex2 | Test and evaluate the Bay Area's ability to provide relocation assistance or interim housing solutions for families unable to return to their pre-disaster homes. | | |

Objective 6.4 Increase Community Resiliency

The Bay Area has 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 known threats and hazards.

Objective 6.4 Implementation Steps and Resource Elements

| PLANNING | | |
|--------------|---|--|
| 6.4-P1 | P1 Ensure CERT Teams are integrated into ICS/NIMS/SEMS. | |
| ORGANIZATION | | |

| 6.4-01 | Establish regional citizen educational programs on personal protective measures, | |
|-----------|---|--|
| | disaster kits and communications plans that can be implemented locally. | |
| 6.4-02 | | |
| 0.4-02 | Develop regional public awareness and preparedness campaigns and education | |
| | materials for access and functional needs populations that can implemented locally. | |
| EQUIPMENT | | |
| 6.4-E1 | Provide and sustain CERT teams with necessary equipment. | |
| TRAINING | 3 | |
| 6.4-T1 | Train the public, with an emphasis on citizen corps volunteers, to be aware and to | |
| | report suspicious items, smells and behavior to local law enforcement (with follow- | |
| | on reporting by law enforcement to the regional NCRIC for analysis). | |
| 6.4-T2 | Conduct CERT Team training on integration with first responders through | |
| | ICS/NIMS/SEMS. | |
| Exercises | | |
| 6.4-Ex1 | Implement an exercise and evaluation process to assess citizen preparedness | |
| | programs through specific exercises or as part of larger overall exercise | |
| 6.4-Ex2 | Conduct exercises to test CERT capabilities. | |

Objective 6.5 Enhance Volunteer Management and Donations

Volunteers and donations within the Bay Area are organized and managed throughout an emergency based upon pre-designated plans, procedures and systems.

Objective 6.5 Implementation Steps and Resource Elements

| PLANNING | | | |
|-----------|---|--|--|
| 6.5-P1 | Update, as needed, the Regional Catastrophic Donations Management Plan. | | |
| 6.5-P2 | Develop plans and procedures to improve local government and volunteer | | |
| | organizations' ability to recruit, screen, credential and manage both pre-affiliated | | |
| | and spontaneous volunteers. | | |
| ORGANIZ | ATION | | |
| 6.5-01 | Provide standardized outreach to local jurisdictions in multiple languages, increasing the ability to effectively utilize all volunteers as necessary. | | |
| EQUIPME | EQUIPMENT | | |
| 6.5-E1 | Acquire and sustain interoperable volunteer management tracking systems. Ensure | | |
| | systems can manage spontaneous volunteers as well as on-call volunteers that can | | |
| | support a variety of capability and mission needs during and after a disaster. | | |
| TRAINING | , second s | | |
| 6.5-T1 | Provide training on the implementation of the Regional Catastrophic Donations Management Plan. | | |
| 6.5-T2 | Develop just-in-time training program for volunteers to perform required tasks. | | |
| EXERCISES | | | |
| 6.5-Ex1 | Conduct exercises on the implementation of the Regional Catastrophic Donations | | |
| | Management Plan. | | |

| GOAL 7 | Mission | National | Core | State |
|----------------------------------|----------|------------|--|---|
| | Area(s) | Priorities | Capabilities | Strategy |
| ENHANCE RECOVERY CAPABILITIES | Recovery | N/A | Infrastructure Systems Economic and Community Recovery | Goal 7: Enhance Recovery Capabilities |

The National Recovery Framework

Given the risk of a major disaster occurring in the Bay Area, it is essential for the region to establish both short-term and long-term recovery capabilities. Building recovery capabilities has for some time been a neglected element of homeland security and emergency preparedness. To help address this gap, in September 2011, DHS released the final National Disaster Recovery Framework. The NDRF defines how Federal agencies will organize and operate to utilize existing resources to promote effective recovery and support states, tribes and other jurisdictions affected by a disaster.

The NDRF seeks to define:

- Roles and responsibilities of the newly-proposed recovery coordinators and other stakeholders;
- A coordinating structure, which includes proposed Recovery Support Functions, that facilitates communication and collaboration among all stakeholders;
- Guidance for pre- and post-disaster recovery planning; and
- The overall process by which, together as a nation, we can capitalize on opportunities to rebuild stronger, smarter, and safer communities.

The NDRF compliments and aligns with the National Response Framework (NRF) and utilizes an operational structure to develop a common recovery framework in a manner similar to how the NRF establishes a common response framework. The NDRF replaces the NRF Emergency Support Function #14 (ESF #14) - Long-Term Community Recovery with six Recovery Support functions (RSFs):

- Community Planning and Capacity Building.
- Economic.
- Health and Social Services.
- Housing.
- Infrastructure Systems.
- Natural and Cultural Resources

The Bay Area will utilize the NDRF as a guide for developing its own recovery framework in coordination with the State of California and the Federal Government. In doing so, certain key principles will guide the development of the regional recovery framework:

- Critical to recovery preparedness is pre-disaster planning, an ongoing responsibility for all levels of governments; individuals and families; the business community; and voluntary, faith-based and community organizations.
- Local governments have primary responsibility for disaster recovery in their community and play the lead role in planning for and managing all aspects of community recovery.
- Partnerships and inclusiveness between local businesses; owners and operators of critical infrastructure and key resources; and voluntary, faith-based, and community organizations are vital.

The Bay Area has significant experience in this area and will build upon that experience to ensure that essential functions from initial damage assessment to housing to economic and community restoration takes place as quickly and as smoothly as possible.

Finally, the NIPP and the CIKR Annex to the NRF provide a bridge between steady-state CIKR protection and resilience programs and incident response. The NDRF links both documents and their related protection and response missions to the recovery mission area. As the Bay Area develops its own recovery framework, it will ensure integration with its CIKR protection and incident response programs where applicable.

Objective 7.1 Strengthen Infrastructure Systems

The Bay Area can 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-incident conditions as quickly as possible. The Bay Area can coordinate activities between critical 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 to support ongoing emergency response operations, life sustainment, community functionality, and a transition to recovery.

| PLANNING | | |
|--------------|---|--|
| 7.1-P1 | Provide assessments, inventories and planning recommendations to mitigate seismic risks in the Bay Area by completing an assessment and inventory of soft story construction in the Bay Area. | |
| 7.1-P2 | Ensure damage assessment protocols and procedures in the Regional Emergency Coordination Plan are kept up to date. | |
| 7.1-P3 | In coordination with the State, conduct infrastructure intersection/interdependency analysis and work plans for guiding mitigation projects, response priorities and post-disaster recovery actions within operational areas and across the region. | |
| 7.1-P4 | Continue to utilize the San Francisco Lifelines Restoration Project as a foundation for regional lifelines restoration planning. | |
| ORGANIZATION | | |
| 7.1-01 | Consistent with the Regional Volunteer Management Plan, develop plans and procedures to recruit volunteers to join assessment teams and conduct structural | |

Objective 7.1 Implementation Steps and Resource Elements

| damage assessments post disasters. |
|---|
| In coordination with the State sponsored Metrics Project, develop standards and |
| procedures, to include a database to identify qualified contractors offering |
| recovery/restoration services and equipment across the Bay Area. |
| |
| Develop qualification and certification standards for paid and volunteer staff. |
| Develop and maintain disaster assessment teams per NIMS - Type I, or II, and/or |
| III Disaster Assessment Teams, and Engineering Service Teams. |
| NT |
| Acquire and sustain technology and systems that can predict the effects of a |
| specific incident or hazard, including estimated damage to the region's |
| transportation system, type, amount and location of debris, and number of |
| buildings severely or completely damaged. |
| Acquire, sustain and inventory personal protective equipment for recovery damage |
| assessment teams. Deploy caches of equipment outside danger zones if necessary. |
| Acquire and sustain damage assessment data collection system (hardware and |
| software). |
| Acquire and sustain back-up generators for short term restoration of lifelines. |
| 5 |
| Provide training to volunteers and paid personnel on damage assessment |
| procedures, plans and equipment. |
| Provide training to government entities on the restoration of lifelines process. |
| ES |
| Ensure damage assessment procedures and mitigation plans and procedures are |
| exercised independently or as part of a regional exercise. |
| Coordinate with other lifelines companies/sectors to create cross-sector exercises to |
| test restoration plans. |
| |

Objective 7.2 Enable Economic Recovery

During and following an incident, the Bay Area can estimate economic impact, prioritize recovery activities, minimize business disruption, and provide individuals and families with appropriate levels and types of relief with minimal delay.

Objective 7.2 Implementation Steps and Resource Elements

| PLANNING | | | |
|----------|---|--|--|
| 7.2-P1 | Develop Regional Recovery Support Function (RSF) or equivalent recovery framework that addresses housing, economic, environmental, infrastructure, and health and social service needs. | | |
| 7.2-P2 | Update, as needed, the Regional Catastrophic Interim Housing Plan. | | |
| ORGANIZ | ORGANIZATION | | |
| 7.2-01 | Identify responsibilities for the position of a Regional Disaster Recovery Coordinator (RDRC) or equivalent, and resources for regional recovery support | | |

| | functions. | | | |
|----------|---|--|--|--|
| TRAINING | TRAINING | | | |
| 7.2-T1 | Develop and implement recovery training and education as a tool for building recovery capacity and making it available to all other stakeholders. | | | |
| 7.2-T2 | Provide training on the implementation of the Regional Catastrophic Interim Housing Plan. | | | |
| EXERCISI | Exercises | | | |
| 7.2-Ex1 | Exercise stabilization and recovery plans to include the Regional Catastrophic Earthquake Interim Housing Plan through specific exercises or as part of larger overall regional exercise. | | | |

Objective 7.3 Improve Environmental Response Health and Safety Capabilities

After the primary incident, the Bay Area is able to assess, monitor, perform cleanup actions, including debris and hazardous waste removal, and provide resources to prevent disease and injury through the quick identification of associated environmental hazards.

Objective 7.3 Implementation Steps and Resource Elements

| PLANNIN | G | | |
|----------|---|--|--|
| 7.3-P1 | Update, as needed, the Regional Catastrophic Debris Removal Plan. | | |
| 7.3-P2 | Develop plans to enhance capacity of sewage treatment facilities for major disasters. | | |
| 7.3-P3 | Pre-identify potential routes for debris removal and debris management. | | |
| 7.3-P4 | Develop debris removal and debris management annexes to EOPs where necessary. | | |
| TRAINING | , | | |
| 7.3-T1 | Provide training on environmental health to pre-designated managers, responders, and volunteers of mass-care operations. | | |
| 7.3-T2 | Provide training to environmental health strike teams. | | |
| 7.3-T3 | Develop and conduct emergency response training relevant to all waste water systems including field staff and managers of waste water programs, waste water utilities, public health, and emergency management. | | |
| EXERCISI | ES | | |
| 7.3-Ex1 | Conduct, or include as part of broader exercises, tests and evaluations of environmental health teams in the region. | | |
| 7.3-Ex2 | Conduct, or include as part of broader exercises, tests of waste water sewage facilities' capacity. | | |

| GOAL 8 | Mission | National | Core | State |
|---|---------|------------|--------------|---|
| | Area(s) | Priorities | Capabilities | Strategy |
| ENHANCE HOMELAND SECURITY EXERCISE, EVALUATION AND TRAINING PROGRAMS | All | All | All | Goal 9: Enhance Homeland Security Exercise, Evaluation and Training Programs |

Bay Area 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 this Strategy, and improve the operational readiness of the homeland security system in the Bay Area across the full spectrum of prevention, protection, mitigation, response and recovery.

The training and exercise goal is primarily focused on developing a system and framework to implement the training and exercise needs identified in the implementation steps within the other objectives in the *Strategy*. The goals, vision and



mission of the Bay Area's training and exercise program are set forth below.

Goals: The Training and Exercise Planning Workgroup will engage in fair, open and transparent processes throughout the planning and implementation processes to ensure that products and services rendered, are equitably distributed, are at a reasonable cost, and ensure fair competition.

Vision: To promote, encourage and provide training and exercise opportunities for our emergency response workforce, and by ensuring our workforce is maintained in a state of readiness and competencies for all communities in region.

Mission: Utilizing the Training and Exercise Strategic Plan, the Alameda County Sheriff's Office, on behalf of the Bay Area UASI program, will promote equitable distribution of training and exercise funds amongst various agencies and disciplines within the region.

The figure above reinforces the Bay Area planning process chart by demonstrating once again the cyclical nature of the risk management and planning process and how Goals 1 and 8 play an overarching role in this process by first identifying the priority risks faced by the Bay Area jurisdictions, and the priority capabilities needed to address those risks. This is followed by

constructing the exercise and evaluation means to determine if those priority capabilities are being enhanced through the implementation steps within each of the objectives throughout the Strategy.

Training and exercises provide the means to enhance, test, and evaluate the Bay Area's proficiency in homeland security generally and the priority capabilities in particular. Exercises, as discussed in the Strategy Evaluation Section, are a critical means of determining whether the Bay Area is actually enhancing those priority capabilities designed to reduce the region's risk. Any assessment program must include a robust exercise and evaluation element to ensure data from simulated incidents are integrated with self-assessment data, and of course, real-world incident data collected both during and after the incident when available. Such a process will put the Bay Area in the best possible position to understand whether it is truly enhancing capabilities and overall preparedness.

Training and Exercises Plans and Procedures

The Bay Area will develop and maintain a regional training program that covers all public safety, health and medical agencies and support entities. The program will be managed by an executive agent/program manager. The executive agent/program manager will oversee, either directly or through separate contracts, all training for the region and will manage all training reimbursements from other member jurisdictions and manage the overall program for the entire Bay Area. The purpose is to build a training program that unifies all jurisdictions within the Bay Area toward a common set of goals while recognizing that each jurisdiction and discipline will have differing levels of capabilities and training needs.

The Bay Area's jurisdictions possess differing levels of preparedness regarding terrorism prevention, protection, mitigation, response, and recovery capabilities. Because of these differences, the Bay Area exercise and evaluation program will use a building-block approach in the design of the overall exercise program. This building-block approach ensures successful progression in exercise design, complexity, and execution, and allows for the appropriate training and preparation to take place in the jurisdiction or area conducting the exercise. Exercises conducted at all jurisdictional levels within the Bay Area – local, operational area, full region - should follow the planning, training, exercise, and improvement plan cycle. As the cycle indicates, it is recommended that jurisdictions accomplish the following specific planning steps prior to conducting an exercise:

- Assess current operations plans for completeness and relevance
- Assess the current level of training and operational plan familiarity for all relevant agencies within the jurisdiction
- Conduct necessary training for all relevant agencies
- Train personnel on newly received equipment
- Conduct exercises using equipment, training, and operations plans
- Develop an After Action Report (AAR) that captures the lessons learned.

The exercise progression for each jurisdiction is to move from a seminar to a table top, to a functional exercise, and finally, to a full scale exercise. These particular exercise types allow for a logical progression of regional and jurisdictional preparedness by increasing in size,

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complexity, and stress factor, while allowing for significant learning opportunities that effectively complement, build upon, and directly lead into one another. This model is flexible enough to allow for the addition of other desired exercise types.

The Bay Area's Urban Shield Exercise

Urban Shield is a national model, full-scale exercise, designed to assess and validate the speed, effectiveness and efficiency of capabilities, as well as test the adequacy of regional policies, plans, procedures and protocols. Urban Shield incorporates regional critical infrastructure, emergency operations centers, regional communication systems, equipment and assets, as well as personnel representing all aspects of emergency response including intelligence, law enforcement, explosive ordnance disposal units, fire, EMS, etc. The Urban Shield exercise is unique because of its focus on training during the exercise. This training provides first responders, homeland security officials, emergency management officials, private and non-governmental partners, and other personnel with the knowledge, skills, and abilities needed to perform key tasks required in large-scale disasters.

Objective 8.1: Strengthen the Regional Exercise and Evaluation Program

The Bay Area exercise program tests and evaluates 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.

| PLANNIN | G |
|---------|---|
| 8.1-P1 | Develop and maintain a comprehensive regional exercise plan and program for the development and conduct of exercises based on risk and capability needs that cover the spectrum of prevention, protection, mitigation, response and recovery mission areas. |
| 8.1-P2 | Coordinate with local jurisdictions to incorporate locally driven needs into the regional exercise plan. |
| 8.1-P3 | Collaborate with local jurisdictions to develop regional exercise goals to meet multiple exercise requirements and foster participation in regional exercises. |
| 8.1-P4 | Coordinate regional exercises with State driven exercises (Golden Guardian) to reduce duplication of effort. |
| 8.1-P5 | Design After Action Reports and improvement plans that are built from capability targets and capture capability proficiencies and gaps that can be readily assessed and quantified for planning purposes. |
| 8.1-P6 | Host agency of major exercise(s) should reconvene participants to review key findings to ensure lessons learned are identified and taken back to all involved agencies. |
| 8.1-P7 | The exercise program management office will evaluate the feasibility of developing a regional exercise calendar. |
| 8.1-P8 | The exercise program management office will review HSEEP portal for trends on best practices and lessons learned and report this information to the Training and |

Objective 8.1 Implementation Steps and Resource Elements

| | Exercise Committee on an as needed basis. | | | |
|----------|--|--|--|--|
| EQUIPME | EQUIPMENT | | | |
| 8.1-E2 | Procure authorized and necessary equipment to conduct exercises. | | | |
| TRAINING | TRAINING | | | |
| 8.1-T1 | Train exercise planning and evaluation staff at the regional and jurisdictional levels | | | |
| | on exercise design, management and evaluation procedures. | | | |
| EXERCISE | EXERCISES | | | |
| 8.1-Ex1 | Develop at least one, regional multi-disciplinary full-scale exercise consistent with | | | |
| | the identified theme of the annual statewide exercise and run the exercise at | | | |
| | multiple locations with multiple partners in the region. | | | |
| 8.1-Ex2 | Conduct multiple exercises at the sub-regional and jurisdictional level annually. | | | |

Objective 8.2 Enhance the Regional Training Program

The Bay Area has 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.

Objective 8.2 Implementation Steps and Resource Elements

| PLANNING | | | | |
|----------|--|--|--|--|
| 8.2-P1 | Develop and maintain a comprehensive regional training plan and program for the development and conduct of training based on risk and capability needs that cover the spectrum of prevention, protection, mitigation, response and recovery mission areas. | | | |
| EQUIPME | EQUIPMENT | | | |
| 8.2-E1 | Materials and supplies, reproduction of materials, and such other equipment needed to conduct the training and support the training program. | | | |
| 8.2-E2 | Tools and systems to document and manage training programs. | | | |
| TRAINING | | | | |
| 8.2-T1 | Implement training to all disciplines based on the regional training program. | | | |

SECTION 7 STRATEGY IMPLEMENTATION

7.1 Implementation Overview

With the development and update of the *Strategy*, the Bay Area must have a comprehensive implementation process to ensure the data and priorities encapsulated in the *Strategy* actually drive the region's policies, structures, projects and investments. This requires assigned roles and responsibilities and a process and tools that link the Bay Area's investments back to the *Strategy's* goals and objectives.

The Bay Area UASI Management Team will have overall responsibility for managing and tracking implementation of the *Strategy*. This will include day-to-day management of the *Strategy* and ensuring that it is updated and followed. This will be done through the development of investment justifications and annual reporting (discussed in the following section).

The Bay Area's strategic approach to implementing the *Strategy* through investing will be premised on two overarching principles:

- First, sustain current priority programs and capabilities in the region.
- Second, close gaps in capabilities with an emphasis on those capabilities that have the highest risk relevance and the largest capability gaps

Given the current fiscal reality of strained state and local budgets, the Bay Area will strive to integrate the various homeland security and preparedness grants that flow into the region to include those from DHS and HHS. This will be done while respecting the responsibilities and authorities vested in individual grantees.

7.2 Investment Justifications

The purpose of submitting investment justifications to DHS is to obtain grant funding necessary to implement the goals and objectives of this *Strategy*. Investment justifications that fall outside the goals and objectives of this *Strategy* will not be submitted. In addition, funding received from other sources related to homeland security may be leveraged in accordance with the goals and objectives of this *Strategy*.

The investment justification process must be viewed as the culmination of a comprehensive homeland security planning and implementation process and not simply as a ninety-day application writing event in order to ask for money from the federal government. This process requires specific steps and management in order to ensure the region as a whole presents a unified investment picture to DHS and the State of California. As such, the *Strategy* outlines, at a high level, those steps that, at a minimum, must be taken in order to ensure the regions operates efficiently and effectively in the planning and investment process.

7.3 Strategy Implementation Process

While the specific details concerning the *Strategy's* implementation process may vary from year to year, certain fundamentals will be followed to ensure the region is achieving and tracking its homeland security goals and objectives. For the Bay Area, given its size and diversity, the process will involve a combination of jurisdictional, sub-regional and region-wide efforts and responsibilities.

7.3.1 Strategy Implementation Guidance

For each fiscal year, the UASI Management Team will develop specific strategy implementation guidance for working groups and applicants to follow during each investment justification cycle relative to the UASI grant program. This will include planning timelines, investment strategies and priorities for a given grant cycle, grant guidance to include funding allocation formulas and allowable spending areas, project templates, and such other materials and policies as necessary.

7.3.2 Project Template

For the UASI grant cycle, and as part of the implementation guidance, the UASI Management Team will develop a project template to be used by applicants to outline proposed projects. The template will be designed to link projects to the Bay Area Strategy by requiring applicants to link to the goals, objectives and implementation steps, including POETE elements, within the Strategy. It is through the project templates that the Bay Area will first link dollars to objectives and in turn link capabilities to dollars to help better answer where and how the region is better prepared.

7.3.3 Project Development

The project template designed by the Bay Area UASI Management Team will be a primary tool with which to vet proposed projects by the region's stakeholders. Only upon vetting by the Bay Area UASI Management to ensure compliance with grant guidelines and UASI policy or the work group shall a project be put forward for final approval by the Approval Authority to implement a specific goal and objective(s) in the Strategy.

With support from the Management Team, the entities, planning hubs, or work groups responsible for overseeing the implementation of the goals and objectives in the Strategy will work with project managers and others to track whether an implementation step within each objective is complete, partially complete or ongoing and report this information to the Advisory Group and Approval Authority as necessary. A complete step is one that is finished and requires no additional resources for implementation. A partially complete step is one where some, but not all, of the step is finished and requires additional resources for completion. An ongoing step is one that may be finished insofar as the plan has been written or the equipment has been purchased but where additional resources are need for sustainment.

SECTION 8 STRATEGY EVALUATION

8.1 Evaluation Overview

In order to truly understand what value the Bay Area is getting for its homeland security investments, the region must have a consistent mechanism by which to measure the effectiveness of the homeland security activities – plans developed, personnel hired, organization and operations conducted, equipment purchased, number of people trained, and exercises conducted – generated through those investments.

In 2011, the Bay Area conducted a preliminary analysis of UASI grant effectiveness. The report qualitatively and quantitatively documented progress made by the Bay Area in building capabilities, reducing risk, and enhancing regional preparedness through investments that support the goals and objectives in the *Bay Area Homeland Security Strategy*, which aligns with the National Preparedness Guidelines and supports the implementation of the State of California Homeland Security Strategy and the National Security Strategy. The report serves as a baseline for future assessments and evaluations of how the region is implementing its Strategy and the effectiveness of the grant programs and other funding sources utilized to do so.

8.2 The Evaluation Process

The long-term goal for the Bay Area is to build a process and tools in order to qualitatively and quantitatively document progress made by the Bay Area in building capabilities, reducing risk, and enhancing regional preparedness based on implementing the goals and objectives outlined in the *Bay Area Homeland Security Strategy*. The result will be the *Bay Area Effectiveness Report*.

Where the *Bay Area Homeland Security Strategy* presents what the region needs to achieve or sustain in homeland security, the *Bay Area Effectiveness Report* presents what the region has actually accomplished in the area of homeland security as a result of investments called for in the *Strategy* from different sources, including local budgets, state budgets, and grants.

Built into each goal and objective in this *Strategy* is a previously conducted risk and capabilities assessment and gap analysis which helped prioritize each goal and objective and identify gaps in each capability. To measure the implementation of the *Strategy*, the Bay Area will evaluate each goal and its related objectives based upon the following high level evaluation guidelines the implementation of which shall be developed and coordinated by the UASI Management Team:

- Update the outcome for each objective in the *Strategy*. This outcome will set the agreed upon broad and overall target level of capability upon which evaluation for each objective will be based.
- Develop Bay Area specific preparedness and performance measures and targets based on the TCL/Core Capabilities List and NIMS/SEMS resource types as well as other resources. Both the TCL and the NIMS/SEMS have laid out critical tasks, preparedness and performance measures, targets and standards for resources that can serve as useful

94

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indicators regarding the current level of preparedness in a given capability area. However, they are not tailored to the specific needs of a given jurisdiction or region. Therefore, the Bay Area must define those targets, measures, and metrics specifically for the region and will consider doing so according to the Core Capabilities or some combination of the TCL and Core Capabilities in the near future.

- Conduct the exercise and evaluation program. The Bay Area's HSEEP must be <u>designed</u> <u>upfront</u> to test whether target capability performance outcomes and related critical tasks are being achieved. Exercises should be designed around testing and evaluating the region's ability to prevent, protect against, mitigate, respond to and recover from the highest risk terrorism scenarios against the highest risk CIKR across the region.
- Inventory investments and projects based on each capability. Each objective has a set of implementation steps broken out by POETE, which coincides with the funding solution areas allowed under most DHS grant programs. That data will be used directly against the performance measures to help determine increases in capability and better understand allocation of resources by capability.

8.3 Methods for Evaluation

Evaluating the implementation of this *Strategy* will be done in the form of measuring whether risk based capability needs are being implemented and tracked. Each objective in this *Strategy* has a set of outcomes in the form of performance objectives tied to it. Those outcomes will form the basis or capability target for measuring whether the region is on pace to achieving or maintaining that objective. It must be noted that each outcome in this *Strategy* is set at the UASI regional level and not at the jurisdictional level within the Bay Area UASI. Thus, each jurisdiction may have different outcomes based on jurisdictional level planning efforts that may be influenced by unique risk and need factors.

To date, there is no single agreed upon method to assess capabilities. Rather, there are a number of data sources and methodologies to help with this process each of which the Bay Area will utilize in the evaluation process:

- Self-Assessments
- Performance based assessments (real world and exercise events)
- Modeling and simulation

8.3.1 Self Assessments

Self-assessments are those where members of the Bay Area homeland security community convene to evaluate their capability levels based on a series of questions and defined metrics and measures. These assessments can cover a wide array of capabilities and public safety disciplines or be targeted to a specific capability or function (e.g., law enforcement). While useful, self-assessments are subjective and can be influenced by factors including the number and type of attendees at the assessment and the questions asked or not asked.

Self-assessments will most often involve workshops, interviews or webinars whereby subject matter expert participants will be asked a series of questions to get an understanding of how they view their level of ability to perform a specific task or set of tasks during a given scenario. For example, SWAT or bomb squad team-based capability assessments can begin with audits of team equipment, supplies, and training records, as well as on site visits to interview team members to capture data.

The Bay Area has undergone several self-assessments over the last several years, most recently in 2009, 2010 again in 2011. In 2009, the Bay Area conducted a region-wide assessment whereby subject matter experts from across the region evaluated the region's level of ability within each of the 37 Target Capabilities. A similar assessment was conducted in 2010 with the difference being the assessment was broken out into four assessments. In 2011, a region wide assessment was once again conducted along with assessments at each of the 12 operational areas.

8.3.2 Performance Based Assessments

Performance-based assessments are most common in the form of exercises, although an ability to track and measure performance during a real world incident would provide the most accurate picture of capability. For the Bay Area, performance-based exercises should be based on testing the region's ability to prevent, protect against, mitigate, respond to and recover from the highest risk terrorism scenarios against the highest risk CIKR as outlined in the risk overview section of the *Strategy*. The Bay Area's primary mechanism for performance based assessment is the Urban Shield Full Scale Exercise conducted annually.

Urban Shield tests the Bay Area's ability to manage numerous on-going critical incidents through the use of multiple incident commands. The critical incidents take place in a variety of venues over an extended period of time. The exercise requires full implementation of the components of the NIMS and SEMS. An Incident Command System (ICS) structure, with four Area Commands and a Department Operations Center are implemented to manage this extremely large exercise.

8.3.3. Modeling and Simulation Assessments

Quantitative capability models can be used to assist with planning and resource allocation, and to help determine capability gaps. Models can provide an independent baseline estimate of required levels of capability for a given jurisdiction or the region, based upon national averages, demographic information, and risk criteria. These models can use quantitative data to inform investment decisions by estimating the full lifecycle costs of achieving a given level of a capability, identifying capability gains from investments, and optimizing placement of new resources.

Appendix A Crosswalk of Target and Core Capabilities

| Target Capability | Core Capability | | |
|--|--|--|--|
| Planning | Planning | | |
| Critical Infrastructure Protection | Physical Protective Measures | | |
| Information Gathering and Indicators and Warnings | | | |
| Intelligence and Information Sharing and Dissemination | Intelligence and Information Sharing | | |
| Intelligence Analysis and Production | | | |
| Risk Management | Risk Management for Protection Programs and Activities | | |
| Responder Safety and Health | | | |
| WMD/HazMat Response | Environmental Response Safety and Health | | |
| Environmental Health | | | |
| Counter-Terrorism and Law Enforcement | Interdiction and Disruption | | |
| Emergency Public Safety and Security Response | | | |
| Explosive Device Response Operations | On-Scene Security and Protection | | |
| On-site Incident Management | | | |
| EOC Management | — Operational Coordination | | |
| Emergency Public Information and Warning | Public Information and Warning | | |
| Triage and Pre-Hospital Treatment | | | |
| Medical Surge | | | |
| Mass Prophylaxis | | | |
| Isolation and Quarantine | Public Health and Medical Services | | |
| Laboratory Testing | | | |
| Epidemiological Surveillance and Investigation | | | |
| Medical Supplies Management and Distribution | | | |
| Communications | Operational Communications | | |
| Fire Incident Response Support | | | |
| Volunteer Management and Donations | Public and Private Services and Resources | | |
| Critical Resource Logistics and Distribution | | | |
| Search and Rescue (Land Based) | Mass Search and Rescue | | |
| CBRNE Detection | Screening, Search and Detection | | |
| Restoration of Lifelines | | | |
| Structural Damage Assessment | Infrastructure Systems | | |
| Economic and Community Recovery | Economic Recovery | | |
| Community Preparedness and Participation | Community Resilience | | |
| Citizen Evacuation and/or Shelter In-Place | Critical Transportation | | |
| Mass Care | Mass Care Services | | |
| Fatality Management | Fatality Management Services | | |
| Food and Agriculture Safety and Defense | Supply Chain Integrity and Security | | |
| Animal Disease Emergency Support | Supply Chain Integrity and Security | | |
| | Risk and Disaster Resilience Assessment | | |
| | Situational Assessment | | |
| | Long Term Vulnerability Reduction | | |
| | Access Control and Identity Verification | | |
| Not Applicable | Forensics and Attribution | | |
| | Threat and Hazard Identification | | |
| | Cyber Security | | |
| | Health and Social Services | | |
| | Housing | | |
| | Natural and Cultural Resources | | |

Appendix B Record of Changes

The following table tracks the significant changes made to the *Strategy*. Revisions that should be documented include the following:

- Updates in risk and capability assessment information.
- Completion or removal of implementation steps and the addition of new implementation steps.
- Addition, reprioritization or other change in goals and objectives following a capabilities assessment or similar analysis.
- Changes in Urban Area organization.
- Changes in vision or mission.

| Date of Change | Page(s) | Brief Description of Changes |
|----------------|---------|---|
| October 2012 | 19 | Section 2.2 Prior and Ongoing Planning Efforts. Added reference to new regional emergency public information and warning strategic plan. |
| October 2012 | 23 | Section 4.3 Core Capabilities. New section added based on the 2011 Core Capabilities from the National Preparedness Goal. This replaces the Target Capabilities List previously referenced. |
| October 2012 | 25 | Section 4.4. Public Health and Medical Capabilities. New section 4.4 added on CDC public and health and medical capabilities and their relationship to the <i>Strategy's</i> goals and objectives. |
| October 2012 | 31 | Section 5.4 Critical Infrastructure and Key Resources. The number of CIKR is now over 8,500. |
| October 2012 | 33 | Section 5.5 Risk Profile. Updated threats and hazards and added likelihood versus risk comparison. |
| October 2012 | 36-37 | Section 5.6 Asset Risk by Sector. Update all data. |
| October 2012 | 38-40 | Section 5.7 Capabilities Assessment. Added new section. New risk relevant capabilities list and table linking threats, CIKR sectors and capabilities all based on new data and taxonomy of Core Capabilities. |
| October 2012 | 41 | Section 6.2 Organizing the Goals and Objectives. All objectives in the <i>Strategy</i> are newly aligned with Core Capabilities and Public Health Preparedness Capabilities (for medical and health objectives) in place of the Target Capabilities. This includes new language summarizing each objective. |
| October 2012 | 44-45 | Goal 1, Objective 1. Added new implementation steps: 1.1-P4, 1.1-P13, 1.1-P14 and 1.1-Ex2. |
| October 2012 | 50 | Goal 2, Objective 2.1. Added new implementation step 2.1-O1. |
| October 2012 | 52-53 | Goal 2, Objective 2.2. Removed prior <i>Strategy</i> version implementation steps 2.3-P2 and 2.5-O1. Added new implementation steps 2.2-T9, 2.2-T10, 2.2-T11, and 2.2-T12. |

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| October 2012 | 54 | Goal 2, Objective 2.3. Added new implementation step 2.3-O2. |
| October 2012 | 55-56 | Goal 3. Updated introductory language explaining BayRICS and BayComm. |
| October 2012 | 57 | Goal 3, Objective 3.1. Added new implementation steps 3.1-E5 and 3.1-Ex4. |
| October 2012 | 58-59 | Goal 4. Updated introductory language to account for new NFPA standards and the integration of EOC management into the goal |
| October 2012 | 61-62 | Goal 4, Objective 4.2. Removed prior <i>Strategy</i> version implementation step 4.2-E1. Added new implementation steps 4.2-T5, 4.2-T6, and 4.2-Ex2. |
| October 2012 | 62-63 | Goal 4, Objective 4.3. Removed prior <i>Strategy</i> version implementation step 4.3-T3. Added new implementation steps 4.3-P1 and 4.3-E3. |
| October 2012 | 63-64 | Goal 4, Objective 4.4. Moved prior <i>Strategy</i> version implementation step 4.4-P2 to current <i>Strategy</i> 4.4-O1. Removed prior <i>Strategy</i> 4.4-T1. Added new implementation steps 4.4-E1, 4.4-E4 and 4.4-T1. |
| October 2012 | 65-66 | Goal 4, Objective 4.6. Removed prior <i>Strategy</i> version implementation step 4.6-P1. Removed prior <i>Strategy</i> version implementation steps 4.6-E1, 4.6-E2, 4.6-T1, 4.6-T2, 4.6-T3, 4.3-T6 and 4.6-Ex1. Added new implementation steps 4.6-P1, 4.6-E1, 4.6-E2, 4.6-T1, 4.6-T2, 4.6-T5, 4.6-T9, 4.6-T10, 4.6-T11, and 4.6-Ex1. |
| October 2012 | 67-68 | Goal 4, Objective 4.7. Combined prior <i>Strategy</i> version objectives 4.7 and 6.1. Removed prior <i>Strategy</i> version implementation steps 4.7-P1, 4.7-P3, 6.1-P1, 6.1-P2, 6.1-P3, 6.1-P6, 6.1-O1, 4.7-Ex1, 4.7-Ex5, and 6.1-Ex2. Added new implementation step 4.7-P11. |
| October 2012 | 70 | Goal 4, Objective 4.9. Removed prior <i>Strategy</i> version implementation step 4.9-P1, 4.9-P5 and 4.9-E1. Added new implementation steps 4.9-P1, 4.9-O1, 4.9-E1 and 4.9-T1. |
| October 2012 | 72-73 | Goal 5, Objective 5.1. Removed prior <i>Strategy</i> version implementation step 5.1-Ex1 and 5.1-Ex2. Added new implementation steps 5.1-T5, 5.1-Ex1 and 5.1-Ex2. |
| October 2012 | 76 | Goal 5, Objective 5.6. Added new implementation step 5.6-E1. |
| October 2012 | 79-81 | Goal 6, Objective 6.1. All implementation steps are new based upon new regional emergency public information and warning capability assessment and strategic plan. All other implementation steps from prior <i>Strategy</i> version were either updated or removed. |
| October 2012 | 81 | Goal 6, Objective 6.2. Added new implementation step 6.2-P2. |
| October 2012 | 82 | Goal 6, Objective 6.3. Added updates to implementation steps 6.3-P1, and 6.3-P3. Added new implementation step 6.3-Ex2. |
| October 2012 | 88 | Goal 8. Added goal, vision and mission statements for the region's training and exercise program. |
| October 2012 | 92 | Section 8.2. Removed prior section and updated language on sustainment policy and strategy. |
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| October 2012 | 93 | Section 8.3.3. Updated title of the section to "project development" and |
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| | | added language on the role of the work groups and planning hubs. |