TRANSPORTATION SECURITY

REGIONAL TRANSPORTATION PLAN
2012–2035 RTP
SUSTAINABLE COMMUNITIES STRATEGY
Towards a Sustainable Future

Southern California Association of Governments

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TRANSPORTATION SECURITY

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Threats in the Region

The SCAG region is vulnerable to many types of catastrophic events including earthquakes, floods, fires, hazardous material incidents, dam failures, civil unrest, transportation accidents, tsunamis and terrorism. Since 1950, the State of California has experienced nearly 300 state or federally declared disasters. Of those, roughly half were caused by wildfires, floods, or earthquakes. Together these three hazards account for the largest losses of life among all disasters and over $55 billion in disaster costs. As a consequence of its experience with disasters, California has initiated a variety of ongoing hazard mitigation efforts.[1]

For the purposes of this chapter, the following definitions are used:

- **Safety** is defined as the protection of persons and property from unintentional damage or destruction caused by accidental or natural events.
- **Security** is defined as the protection of persons or property from intentional damage or destruction caused by vandalism, criminal activity or terrorist attacks.[2]

Consequences of Disasters

Civic infrastructure is critical to the welfare of urban areas. Transportation, utilities, communications, fuel, and water all provide services essential to the welfare and quality of life of residents. Catastrophic incidents often produce a cascading effect on the infrastructure. If one of these support systems breaks down it can have a domino effect on other elements, and the failure of multiple elements can be crippling. Some of the ways in which the infrastructure can be affected in a disaster or emergency are shown in the following tables.[3]

TABLE 1 Possible Effects of Damage to the Infrastructure

Service	Effect
Transportation	▪ Inability to get emergency service personnel into the affected area ▪ Inability to transport victims away from the area
Electrical	▪ Increased risk of fire and electrical shock. ▪ Possible disruption to transportation system if downed lines are across roads
Telephone	▪ Lost contact between victims, service providers, and family members ▪ System overload due to calls from or to friends or relatives
Water	▪ Disruption of service to homes, businesses, and medical providers ▪ Inadequate water supply for firefighting. ▪ Increased risk to public health if there is extensive damage or contamination to supply
Fuel Supplies	▪ Increased risk of fire or explosion from ruptured fuel lines ▪ Risk of asphyxiation from natural gas leaks in confined areas

Each instance of infrastructure damage may severely restrict the abilities of emergency responders to provide service following a disaster. Some types of damage and their effects on emergency services are included on Table 2:

1 State of California Multi-Hazard Mitigation Plan, California EMA, 2007

2 National Cooperative Highway Research Program Report 525 Volume 3, "Incorporating Security into the Transportation Planning Process" Daniel Dornan and M. Patricia Maier, 2005

3 Federal Emergency Management Agency: Community Emergency Response Team (IG-317) Student's Guide

TABLE 2 Possible Effects of Damage on Emergency Service Providers

Type of Damage	Effect on Emergency Services
Roadways, Bridges, Tunnels, Interchanges	▪ Inability to assess damage accurately. ▪ Ambulances prevented from reaching victims and/or victims prevented from reaching emergency medical services. ▪ Police prevented from reaching areas of civil unrest. ▪ Fire departments prevented from getting to fires. ▪ Flow of needed supplies is interrupted. ▪ Inability to deploy assets as part of incident response and to manage transportation flows ▪ Inability for emergency service providers to manage an evacuation
Structural	▪ Damaged hospitals unable to receive patients. ▪ Increased risk of damage from falling debris.
Disrupted Communication	▪ Victims unable to call for help. ▪ Coordination of services is hampered. ▪ Inability for incident command structure to receive real time situational information, reducing its effectiveness
Fuel Line Damage	▪ Fire and paramedic services overburdened. ▪ Inability to sustain emergency response and recovery
Disrupted Water Service	▪ Firefighting capabilities restricted. ▪ Medical facilities hampered.

Basic assessments of the impacted areas are needed to produce an adequate emergency response to a disaster. An assessment of vulnerabilities to security and safety also may prevent or limit effects of a catastrophic incident.

Currently, there are numerous agencies that participate in the response to incidents and assist with hazard preparedness for individual jurisdictions. Collaboration occurs between many of these agencies. The Federal Emergency Management Agency (FEMA) oversees coordination. However, FEMA defines metropolitan areas and coordination different then the US Department of Transportation, limiting SCAG's ability to participate at an agency level. SCAG seeks to utilize its strengths and organization to assist planners, first responders and recovery teams in a supporting role.

SCAG, as a MPO is restricted from undertaking a first response or emergency management role. SCAG has three areas where it can assist both before a major emergency and during the recovery period:

1. Provide a policy forum to help develop regional consensus and education on security policies and emergency response.
2. Assist in the planning and programming of transportation infrastructure repairs
3. Leverage projects and planning functions (including Intelligent Transportation Systems, also known as ITS) that can enhance or provide benefit to transportation security efforts and those responsible for planning and responding to emergencies.
   a. Integrate security into the regional ITS architecture
   b. Become a central repository/mirror for regional geo-data that can be used for planning, training, response and relief efforts of law enforcement personnel and emergency responders.

Overview of Existing Systems

Regional System Description

The United States is comprised of nearly 3.8 million square miles and has a population over 300 million persons. Its transportation systems continue to evolve and expand in order to accommodate its populous, workforce, and economy. Security of the nation's transportation systems and the lives of the people that utilize these systems are a top priority of government agencies at all levels. Transportation systems include airports, ports, waterways, rail, highways, and pipelines.[4] According to the Bureau of Transportation Statistics, the United States maintains over four million miles of roadway (streets, roads, highways), nearly 600 thousand bridges, 150 thousand miles of railway, over 5,000 public airports, 1.3 million miles of gas pipelines, and over 180 thousand mile of gas pipeline.

[4] The American transportation sector is dependent on foreign oil sources; in fact 51.5 percent of petroleum used in the United States is currently imported (Bureau of Transportation Statistics 2009)

The SCAG region has 18.5 million residents—almost half of California's population—and encompasses a geographic size equivalent to Ohio. This region remains as one of the largest economic engines in the United States and the world. In 2008, the region had a Gross Regional Product of $865 billion. It generates 13.5 percent of the nation's international trade ($value). Indeed, Southern California faces numerous challenges in maintaining its important role in the country and the world including the ability to prevent, or recover from, catastrophic events. In the SCAG region, transportation infrastructure also encompasses a vast system:

Roadways and Freeway	
Freeway Lanes Miles (excluding carpool)	9,424 miles
Carpool Lane Miles (including HOT lanes)	1,033 miles
Road Lane Miles (arterials)	38,871 miles
Public Transit	
Buses	5,443 vehicles
Metro Rail	73 miles and 65 Stations
Metrolink	512 miles and 55 Stations
Aviation/Ports	
Commercial/General Aviation Ports	57
LAX ranks among world's airports	5th in passengers and 11th in cargo
Long Beach/Los Angeles ranks among world's container ports	5th
Share of United States Maritime Trade	41 percent

Due to the vast expanse of transportation infrastructure, it would be physically and financially impossible to protect all transportation systems from natural disaster or human caused incidents. Consequently, there is a subset of transportation infrastructure that is of specific interest to national, state and regional leaders. These critical facilities vary in degree of importance. In the risk assessment section, critical facilities are examined for the Southern California region.

Critical Infrastructure

The USA PATRIOT Act of 2001, passed shortly after the terrorist attacks of September 11, defines critical infrastructure as:

> "Systems and assets, whether physical or virtual, so vital to the United States that the incapacity or destruction of such systems and assets would have a debilitating impact on security, national economic security, national public health or safety, or any combination of those matters (Sec. 1016(e))."

Less than one year later in July 2002, the National Strategy for Homeland Security, identified thirteen sectors of critical infrastructure.

Agriculture	**Information Technology and Telecommunications**
Food	**Energy**
Water	**Transportation**
Public Health	**Banking and Finance**
Emergency Services	**Chemical Industry and Hazardous Materials**
Government	**Postal and Shipping**
Defense Industrial Base	

While many sectors will be affected at one time or another during any type of incident or disaster, the scope of this section is specific to transportation infrastructure (e.g., aviation, maritime, mass transit, highway, freight rail, and pipeline).

Critical Transportation Infrastructure (CTI) consists of transportation facilities whose removal from service would severely impact the public safety, national security, economic activity, or environmental quality. Examples of Critical Transportation Infrastructure include:

1. Major arterial highways and bridges comprising the National Highway System (NHS), including Strategic Highway Network (STRAHNET) and National Intermodal Connectors.

2. International marine harbors, ports, airports and border crossings.
3. Major railroads, including depots, terminals and stations.
4. Oil and natural gas pipelines.
5. Transportation Control Systems (e.g., air traffic control centers, national control center).

As with most regions of the world, the transportation infrastructure in Southern California plays a major role in its residents' quality of life. The region's expansive urban form makes travel critical to daily life. Not surprisingly, a 2006 public opinion survey found that the overwhelming concern in the region was transportation. The region has one of the highest cost of housing in the nation and high incidents of crime. While these are critical issues that must be addressed to improve the Region's quality of life, exacerbating traffic condition is viewed by many as a greater challenge. A failure in the transportation system as a result of natural disaster or human-caused event would bring significant disruptions to the quality of life of many individuals.

A number of plans, programs, organizations and infrastructure are in place within the SCAG region to provide safety and security of the regional transportation system for many potential situations. The following sections provide an overall summary of efforts to maintain and increase the transportation safety and security of the region

STRATEGIC HIGHWAY NETWORK

The Strategic Highway Network (STRAHNET) routes within the SCAG region are essential to readily accommodate the movement of military supplies and personnel in times of national emergencies. STRAHNET routes were selected by the federal government, and include the National Interstate system, as well as key "non-interstate" routes and connectors to ports and military installations.

SCAG, through its planning processes, identifies the operation and maintenance needs of the interstate and state highway system within its jurisdiction, including STRAHNET. Within the SCAG region, all interstate facilities are part of the STRAHNET. Also, SR-14, SR-101 and Route 395 are part of the non-interstate STRAHNET routes. Various connectors between the ports as well as various military installations and STRAHNET are also included.

CALIFORNIA CRITICAL NEEDS ASSESSMENTS

There have also been several assessments of the critical state transportation infrastructure, which include identification of the key transportation facilities. Assessments have been conducted by the following bodies:

- The California Emergency Management Agency
- The California Attorney General's Office
- The California Highway Patrol (CHP) conducted a vulnerability assessment of the State's highway system and has issued a confidential report to the State Legislature

The results of these assessments have been shared with the transportation system operators and incorporated into their security planning. However, security considerations have precluded the inclusion or discussion of these critical system elements in public documents.

UNITED STATES DEPARTMENT OF DEFENSE

The Department of Defense (DOD) has several installations within the SCAG region. In the case of a large scale emergency, the DOD is authorized to provide resources when response and recovery requirements are beyond the capabilities of civilian authorities, and these efforts do not interfere with the DOD's core mission or ability to respond to operational contingencies.

Requests for Defense Support to Civilian Authorities (DSCA) are made through the local, county and State authorities as a request for assistance to the federal coordinating official in the appropriate lead federal agency and is normally accompanied by, or submitted after a request from the Governor for a disaster declaration from the President. The Defense Coordinating Officer coordinates the DOD resources to be provided. The California National Guard may be activated as part of the DSCA and can provide law enforcement support, crisis management and consequence management services. Activation of the National Guard for local support during emergencies is done by the Governor via the California Office of Emergency Services.[5]

[5] San Diego Association of Governments, *2007 Regional Transportation Plan White Paper: Public Safety and Homeland Security,* July 21, 2006.

INTERNATIONAL BORDER CROSSINGS

Within the SCAG region, there are three international ports of entry along the Mexico-Imperial County border; Two at Calexico (Calexico and Calexico-East), and; One at Andrade (near Yuma, Arizona). Traffic from these ports enters California on the I-8 corridor. U.S. Customs and the Border Protection Agency within DHS are charged with the management and control of the official ports of entry. Security planning includes local emergency services as well as the CHP.

Caltrans District 11 has developed a Border Master Planning collaboration with local, state and federal stakeholders in the United States and Mexico. The plan established criteria to be used in future studies to coordinate and prioritize projects related to existing and new Ports of Entry (PEMA) as well as roads leading to the California Mexico PEMA.

Future projects will consider operational improvements, design and retrofitting of border crossings, as well as roadway improvements designed to ease congestion at border crossings.

SEAPORTS

The Department of Homeland Security (DHS) has designated the seaports of Long Beach and Los Angeles and Port Hueneme as at risk for potential terrorist actions.[6] Security at the ports is the joint responsibility of the U.S. Coast Guard, the U.S. Customs and Border Protection Agency, federal and state Homeland Security offices, Port police agencies, Harbor Patrols and emergency service agencies. The U.S. Coast Guard leads the local Area Maritime Security Commission which coordinates activities and resources for all port stakeholders.

The Port of Los Angeles is unique in that it has a dedicated police force, the Los Angeles Port Police, to patrol the area within the jurisdiction of the Port of Los Angeles. The Port Police enforces federal, state and local public safety statutes as well as environmental and maritime safety regulations in order to maintain the free flow of commerce and produce a safe, secure environment that promotes uninterrupted Port operations. In addition, the Port Police partners with other law enforcement agencies such as the Los Angeles Police Department, California Highway Patrol, and Customs and Border Protection in the Cargo Theft Interdiction Program (CTIP), which investigates cargo theft, and the High Intensity Drug Trafficking Area, which targets drug trafficking at the Ports of Los Angeles and Long Beach. Furthermore, per the Maritime Transportation Security Act of 2002, the Port of Los Angeles works with the Coast Guard to develop security plans for facilities at the port.

Similar to the Port of Los Angeles, security at the Port of Long Beach entails physical security enhancements, police patrols, coordination with federal, state, and local agencies to develop security plans for the port area and investigate suspicious incidents, and obtaining federal funding to pay for these enhancements. As with the Port of Los Angeles, the Port of Long Beach works with the Coast Guard to develop security plans for facilities at the port.

In contrast to the Port of Los Angeles, however, the Port of Long Beach does not have its own dedicated police force. Instead, the Long Beach Police Department is responsible for patrolling the port area. In doing so, the Port reimburses the Long Beach Police and Fire Departments for their port-related activities and expenses. The Port also funds its own Harbor Patrol to supplement law enforcement work conducted by other agencies such as the Coast Guard.

In addition, several programs are in place to effectively monitor and screen seaport cargo. They include:

- Investigations: The federal Container Security Initiative (CSI) directs Customs agents, working with host governments, to inspect and examine all cargo containers deemed high-risk before they are loaded on U.S.-bound vessels. The CSI contains four core elements: Identifying high-risk containers; pre-screening containers before they reach U.S. ports of entry; using technology to pre-screen high-risk containers; and developing and using smart and secure containers.
- Inspections: The 24-hour rule requires manifest information on cargo containers to be delivered to U.S. Customs 24 hours before the container is loaded onto a vessel in a foreign port. Customs has the right to stop any container from being loaded, for any reason, while the container is still overseas.
- Partnerships: Most of the largest U.S. importers and their trading partners participate in the Customs-Trade Partnership Against Terrorism (C-TPAT), a public-private

[6] Fiscal Year 2006 Infrastructure Protection Program. U.S. Department of Homeland Security, September 25, 2006.

partnership designed to improve security standards throughout the cargo supply chain.

- Technology: U.S. Customs uses X-ray, gamma ray and radiation-detection devices to screen incoming cargo at U.S. ports.

AIRPORTS

Airport security planning is the joint responsibility of the federal Transportation Security Administration (TSA), the airlines and the individual airports. There are ten airports in the SCAG region offering commercial service, and two offering commuter service. In addition, over 50 general aviation airports in the region are available for public use, including some of the most active general aviation airports in the country. Airports in the SCAG region have upgraded their security systems since 9/11 using a variety of strategies in conjunction with local, state and federal law enforcement.

In addition, airports serve a vital role in recovery efforts. Airports can serve as evacuation centers, and if in working order after an incident, can serve as staging centers for relief efforts. Large flat areas at airports provide excellent staging areas for supplies and equipment, including helicopters.

TRANSPORTATION MANAGEMENT CENTERS

Caltrans, in conjunction with the California Highway Patrol (CHP), has created Transportation Management Centers (TMCs) to rapidly detect and respond to incidents while managing the resulting congestion.

With the help of intelligent transportation system technologies such as electronic sensors in the pavement, freeway call boxes, video cameras, ramp meter sensors, earthquake monitors, motorist cellular calls, and commercial traffic reports; as well as Caltrans highway crews, 9-1-1 calls and officers on patrol. The TMC provides coordinated transportation management for general commutes, special events and incidents affecting traffic.

The TMCs are operated within each Caltrans district. For the SCAG region, Districts 7, 8, 11 and 12 all have TMCs.

RAIL AND MASS TRANSIT SECURITY

Rail and mass transit systems have long been an attractive target for terrorists and criminals. According to a RAND Corporation database of worldwide terrorist incidents, between 1995 and June 2005, there were over 250 terrorist attacks worldwide against rail targets, resulting in almost 900 deaths and over 6,000 injuries (excluding the 2005 London attacks).[7] One of these attacks occurred near Hyder, Arizona, where an Amtrak train carrying 300 passengers was intentionally derailed in October, 1995. One person died and 78 were injured.

Since the early 1990s, the California Public Utilities Commission has required that transit agencies operating rail systems prepare a comprehensive System Safety Program Plan (SSPP) that also included a security component.

Most transit agencies have a security and emergency management plan, which details how the agency would coordinate with first responder (law enforcement and fire) agencies, their respective County Office of Emergency Services and the statewide Standardized Emergency Management System (SEMS).

Transit agencies that apply for DHS Transit Security Grants Program (TSGP) funds are required to develop a regional transit security strategy. Several transit agencies within the SCAG region have worked together to develop a regional transit security strategy. A recent rule from the FHWA/FTA requires Metropolitan Planning Organizations, such as SCAG, to be consistent with transit safety and security planning and to review processes, plans and programs, as appropriate.

After the Chatsworth Metrolink train crash, the Federal Government initiated a requirement for train operators to develop and implement Positive Train Control (PTC) on their locomotives. PTC is an automated system that can stop a locomotive if the engineer does not respond to warning signals. SCAG anticipates this will eventually expand to light rail and integrated PTC into the regional ITS Architecture.

Threat/Hazard Descriptions

[7] Government Accountability Office, Passenger Rail Security: Enhanced Federal Leadership Needed To Prioritize And Guide Security Efforts, Sept. 2005 at 10 (GAO-05-851), available at http://www.gao.gov/new.items/d05851.pdf.

As mentioned earlier, numerous threats/hazards were considered for inclusion in the matrix, even though not all of them ended up being included for further analysis. What follows is a compilation of threats/hazards outlined in local plans that are directly relevant to transportation infrastructure. The list of threats/hazards that can disrupt regional continuity has been divided into three categories:

- Natural
- Accidental Technological / Infrastructure Failure
- Terrorism and Behavioral

The Transportation Research Board has classified emergency events that affect transportation agencies into several categories, listed below:

TABLE 3 Emergency Events Impacting Transportation Agencies[8]

Naturally Occurring	Human Caused	
	Intentional	Accidental / Non-Intentional
▪ Droughts ▪ Dust/Wind Storms ▪ Earthquakes ▪ Electrical Storms ▪ Floods ▪ High Winds ▪ Hurricanes ▪ Ice Storms ▪ Landslides ▪ Naturally Occurring Epidemics ▪ Snowstorms and Blizzards ▪ Tornadoes ▪ Tropical Storms ▪ Tsunamis ▪ Wildfires	▪ Bomb Threats and Other Threats of Violence ▪ Disruption of Supply Sources ▪ Fire/Arson ▪ Fraud/Embezzlement ▪ Labor Disputes/Strikes ▪ Misuse of Resources ▪ Riot/Civil Disorder ▪ Sabotage: External and Internal Actors ▪ Security Breaches ▪ Terrorist Assaults Using Chemical, Biological, Radiological, or Nuclear Agents ▪ Terrorist Assaults Using Explosives, Firearms, or Conventional Weapons ▪ Theft ▪ Vandalism ▪ War ▪ Workplace Violence ▪ Cyber Attacks	▪ Accidental Contamination or Hazardous Materials Spills ▪ Accidental Damage to or Destruction of Physical Plant and Assets ▪ Accidents That Affect the Transportation System ▪ Gas Outages ▪ Human Errors ▪ HVAC System Failures or Malfunctions ▪ Inappropriate Training on Emergency Procedures ▪ Power Outages ▪ Software/Hardware Failures or Malfunctions ▪ Unavailability of Key Personnel ▪ Uninterruptible Power Supply (UPS) Failure or Malfunction ▪ Voice and Data Telecommunications Failures or Malfunctions ▪ Water Outages

[8] National Cooperative Highway Research Program, Report 525, Volume 9, "Guidelines for Transportation Emergency Training Exercises," McCormick Taylor Inc., 2006

Asset Categories and Descriptions

As touched upon earlier, the United States' transportation network is vast and expansive. Because millions of passengers and goods use some aspect of the transportation sector each year, critical transportation assets have become highly attractive targets for terrorist attacks.

As outlined in the Transportation Systems Sector-Specific Plan, the transportation systems sector has been divided into six key sub-sectors: aviation, freight rail, highway, maritime, mass transit, and pipeline. Identified below are fifteen critical transportation assets found within the SCAG region that fall within one of the sub-sectors.

- **Public roads/highways**
- **Bridges/interchanges/overpasses**
- **Tunnels**
- **Traffic management and operations centers**
- **Intelligent Transportation Systems**
- **Airports**
- **Mass transit bus and rail facilities (public)**
- **Mass transit bus and rail facilities (operations and maintenance)**
- **Bus and rail transit vehicles**
- **Port and harbor facilities**
- **Rail freight vehicles**
- **Rail cargo facilities**
- **Rail tracks and alignments**
- **Intermodal connections**
- **Pipelines**

With all of these different critical transportation assets located throughout the SCAG region in which people depend upon for continuity of life it can be a difficult task to determine which ones are most vulnerable to threats / hazards. As can be seen by performing risk assessments, the critical transportation assets that become the most important to protect are the ones that are utilized by the greatest number of people, contribute significantly to the economic well-being of the region, and provide the greatest connectivity between all of the different transportation components.

Applicability of Threats to Assets

Based on an extensive review of local and state documents, including hazard mitigation plans, the potential threats/hazards within the SCAG region have been pre-identified. Included in the appendix is a threat/hazard asset matrix that can be used to determine the potential impact of a disaster to their critical transportation assets. As mentioned earlier, SCAG is in a great position to coordinate the cooperation of relevant agencies, particularly transportation and emergency management, throughout the six counties of the SCAG region. Coordination throughout the SCAG region is vital due to the interconnectedness of transportation critical infrastructure located throughout the SCAG region.

Security and Emergency Preparedness

SCAG's Regional Preparedness Goal is stated as, "to achieve and sustain at risk target levels of capability to prevent, protect against, respond to, and recover from major human-caused or natural events in order to minimize the threat and impact to lives, property and the region."

Prior to the September 11, 2001 terrorist attacks on the United States, there was not a single incident that impacted transportation facilities as result of a national consequence. Prior aircraft incidents involved hostage taking or placing explosives on the plane. The use of passenger aircraft as missiles, and recent transit related terrorism in other countries created a new awareness of the vulnerabilities of transportation facilities.

As concerns about the threat of terrorism have grown, government agencies at all levels have taken new measures to secure the welfare of its citizens. Hurricane Katrina and other natural disaster have also brought attention to how critical emergency preparedness is to the response and recovery of a catastrophic event. Transportation and transit agencies throughout the United States are taking increased steps to protect their facilities against the threats of crime, terrorist activity, and natural disasters.

As stated earlier, there are numerous agencies that have been developed to participate in the response of a disastrous and assist with hazard preparedness for individual jurisdictions. In California, they include the following:

California Emergency Management Agency

Domestic security at the state government level in California is primarily handled by the California Emergency Management Agency (EMA). The role of EMA is to 'coordinate overall state agency responses to major disasters in support of local government. The office is responsible for assuring the State's readiness to respond to and recover from natural, man-made, and war-caused emergencies, and for assisting local governments in their emergency preparedness, response and recovery efforts. The EMA serves as the central contact point in the state for any emergency or imminent disaster. It coordinates the notification of appropriate state administering agencies that may be required to respond, as well as the emergency activities of all state agencies in the event of an emergency.

In doing so, the EMA does not focus on security specifically, but rather more broadly on addressing all potential incidents that could impact the state, such as earthquakes, fires, floods, and terrorist attacks. Furthermore, EMA coordinates with federal agencies such as the Department of Homeland Security and Federal Emergency Management Agency, as well as other state and local agencies such as the California Highway Patrol.

The EMA released the 2010–2015 Statewide Emergency Management Strategic Plan, which outlines California's vision, mission, principles for emergency management, as well as goals and objectives for the period of 2005-2010. In addition to the strategic plan, EMA has released a local planning guide on terrorism, which provides guidance to local cities in planning for potential terrorist acts.

The EMA is required to develop model guidelines for local government agencies and community based organizations to develop a (voluntary) disaster registry program for long-term and community health facilities and for individuals that are disabled or elderly. Individuals registered in the program should be prepared to be self-sufficient for at least 72 hours.[9]

[9] http://www.calema.ca.gov/LandingPages/Documents/Cal%20EMA%20Strategic%20Plan%202010-2015.pdf

Multi-Hazard Mitigation Plans

Mitigating hazards before the occurrence of a disaster is the primary step in preparing for emergencies, rather than the final step of recovery. The goal of hazard mitigation plans is to guide implementation activities in order to achieve the greatest reduction of vulnerability, which will result in saved lives, reduced injuries, reduced property damages, and greater protection of the environment.

FEMA requires state and local governments to develop hazard mitigation plans and update them every three years.

The Disaster Mitigation Act of 2000 (DMA 2000), Section 322 (a-d) requires that local governments, as a condition of receiving federal disaster mitigation funds, have a mitigation plan that describes the process for identifying hazards, risks and vulnerabilities; identifies and prioritizes mitigation actions; encourages the development of local mitigation, and provides technical support for those efforts. "Local Governments" are defined in the DMA 2000 to typically include counties, local municipalities, and tribal governments; but can also include other local agencies and organizations, including Councils of Governments, schools and other special districts.

California updated its State of California Multi-Hazard Mitigation Plan in 2010.[10] The State is required to adopt a federally-approved State Multi-Hazard Mitigation Plan to be eligible for certain disaster assistance and mitigation funding. The Plan is an evaluation the hazards California faces and the strategies, goals, and activities the state will pursue to address these hazards. The Plan:

- Documents statewide hazard mitigation planning in California
- Describes strategies and priorities for future mitigation activities
- Facilitates the integration of local and tribal hazard mitigation planning activities into statewide efforts
- Meets state and federal statutory and regulatory requirements

All six SCAG counties and a number of cities within the SCAG region have completed Hazard Mitigation Plans. EMA dictates that these plans must also be updated every three years.

[10] http://hazardmitigation.calema.ca.gov/plan/state_multi-hazard_mitigation_plan_shmp)

County Offices of Emergency Services

Counties and cities are the first responders to any security or emergency situation. These responders include fire departments, police and sheriff department, hospitals, ambulance services and transportation agencies. Coordination among public and private agencies within various cities and counties make the most use of all available resources in the event of any emergency.

While each city and county has their own security procedures, the policies are generally similar.

Mutual Aid agreements between cities, counties and private organizations help to maximize resources and reduce the human suffering associated with disaster situations. Each SCAG county has a department in charge of security and emergency response:

County	Office Information	County	Office Information
Imperial	Office of Emergency Services 1078 Dogwood Road Heber, CA 92249 760.482.2400	Riverside	Office of Emergency Services 4080 Lemon Street, Suite 8 P.O. Box 1412 Riverside, CA 92502-1412 951.955.4700
Los Angeles	Office of Emergency Management 1275 N. Eastern Ave. Los Angeles, CA 90063 323.980.2261	San Bernardino	Office of Emergency Services 1743 W. Miro Way Rialto, CA 92376 909.356.3998
Orange	Office of Emergency Services 2644 Santiago Canyon Road Silverado, CA 92676 714.628.7055	Ventura	Office of Emergency Services 800 South Victoria Ave. Ventura, CA 93009 805.654.2551

National Incident Management System / Standardized Emergency Management System

The National Incident Management System (NIMS) is a tool for states, counties and local jurisdictions to respond to catastrophic events through better communication and coordination.

> NIMS provides a consistent nationwide template to enable Federal, State, local, and tribal governments, and private-sector and nongovernmental organizations to work together effectively and efficiently to prepare for, prevent, respond to, and recover from domestic incidents, regardless of cause, size, or complexity, including acts of catastrophic terrorism.[11]

California has a similar management system called the Standard Emergency Management System (SEMS) which is mandated under California Government Code Section §8607(a). State of California Executive Order S-2-05 requires the state to integrate, to the extent appropriate, the NIMS, into the State's Standardized Emergency Management System (SEMS).[12]

The NIMS Integration Center strongly recommends that all elected officials who will be interacting with multiple jurisdictions and agencies during an emergency incident to take the following NIMS courses, at a minimum:

- FEMA IS-700: NIMS, an Introduction[13]
- ICS-100: Introduction to Incident Command System (ICS)[14] or equivalent

(Note: FEMA IS-700 "NIMS, and Introduction" and ICS-100 are used extensively in the development of this section)

All federal, state, local, tribal, private sector and non-governmental personnel with a direct role in emergency management and response must be NIMS and ICS trained. This includes all emergency service related disciplines such as Emergency Medical Technicians, hospitals, public health, fire service, law enforcement, public works/utilities,

[11] http://www.fema.gov/pdf/nims/NIMS_basic_introduction_and_overview.pdf

[12] http://gov.ca.gov/index.php/executive-order/2000/

[13] http://www.training.fema.gov/emiweb/is/is700.asp

[14] http://www.training.fema.gov/EMIWEB/is/is100.asp

skilled support personnel, and other emergency management response, support and volunteer personnel.

The NIMS employs two levels of incident management, depending upon the type of incident.

Incident Command System (ICS) is a standard, on scene, all-hazard incident management system. ICS allows users to adopt an integrated organizational structure to match the needs of single or multiple incidents.

Multi-Agency Coordination Systems are a combination of facilities, equipment, personnel, procedures and communications integrated into a common framework for coordinating and supporting incident management.

ICS has been in use for over 30 years and is used for planned events, fires, earthquakes, hurricanes, acts of terrorism, etc. ICS helps all responders communicate and effectuate logistics.

NIMS requires all emergency plans and standard operating procedures to incorporate NIMS components, principles and policies; include emergency planning, training, response, exercises, equipment, evaluation, and corrective actions. Chief elected and appointed officials in a community need to be directly involved in these NIMS preparedness elements, especially the elements that deal with exercising community emergency management policies, plans, procedures and resources.

Jurisdictions will be required to meet the FY 2006 NIMS implementation requirements as a condition of receiving federal preparedness funding assistance in FY 2007. However, it is important to recognize that the NIMS is a dynamic system, and the doctrine as well as the implementation requirements will continue to evolve as emergency management capabilities change.

Mutual Aid Agreements (MAA)

Immediately following the 1994 Northridge earthquake, city and county emergency managers in the Governor's Office of Emergency Services (EMA) Coastal, Southern, and Inland Regions developed a coordinated emergency management concept called the Emergency Managers Mutual Aid (EMMA) system. EMMA provided a valuable service in the emergency response and recovery efforts at the Southern Regional Emergency Operations Center (REOC), local Emergency Operations Centers (EOCs), the Disaster Field Office (DFO), and community service centers.

The purpose of Emergency Managers Mutual Aid (EMMA) is to support disaster operations in affected jurisdictions by providing professional emergency management personnel.

In accordance with the Master Mutual Aid Agreement, local and state emergency managers have responded in support of each other under a variety of plans and procedures.

The objectives of the EMMA Plan include:

1. Providing emergency management personnel from unaffected areas to support local jurisdictions, Operational Areas, and regional emergency operations during proclaimed emergencies.
2. Providing a system, including an organization, information, and forms necessary to coordinate the formal request, reception, assignment, and training of assigned personnel.
3. Establishing a structure to maintain this document (the Emergency Managers Mutual Aid Plan) and its procedures.
4. Providing for the coordination of training for emergency managers, including Standardized Emergency Management System (SEMS/NIMS) training, emergency management course work, exercises, and disaster response procedures.
5. Promoting professionalism in emergency management.[15]

The transportation sector, as other critical sectors of the country, is continuously striving to improve prevention, preparedness, response, recovery, and mitigation capabilities at all levels of society. As is discussed below, MPOs can play a significant role in promoting preparedness and recovery capabilities.

[15] http://www.EMA.ca.gov/Operational/EMAHome.nsf/PDF/Emergency Managers Mutual Aid Plan/$file/Emma.pdf

Intelligent Transportation Systems Related to Security

The national Intelligent Transportation Systems (ITS) Program began with the Intelligent Vehicle Highway Systems Act included in the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991. Through the Act, the U.S. Congress recognized the importance of advanced transportation systems and technologies. The renewed importance of Transportation System Management (TSM) and advanced technologies has been made possible by major advances in the computer and telecommunications industries including the conversion of previously classified defense technologies for domestic use. Today, TSM and advanced technologies offer new and important improvements in safety and efficiency for nearly every function of our regional transportation system. Although ITS has become customized from defense technologies to primarily improving the safe and efficient movement of people and goods, there is now an urgency to include a security components in ITS capabilities. Fundamentally, ITS already has security elements within its functionalities. The Federal government holds that a comprehensive ITS security review and update to the National ITS Architecture is essential for the protection of surface transportation systems throughout the country.

Effective in April 2001, the Federal Highway Administration required the integration of the deployment of regional ITS systems through a Final Rule and Policy mandate. In the development of an ITS architecture, "agencies that own and operate transportation systems must collaborate and consider current and future needs to ensure that today's processes and projects are compatible with future ITS projects." Under federal mandate, responsible transportation agencies had four years to comply with the ITS law. In 2005, SCAG completed the regional ITS architecture in compliance with the federal rulings. The regional ITS architecture has been regularly updated on a modular basis since 2005. The Regional ITS Architecture covers the following user needs of Critical ITS elements:

- Maintenance and management by the ITS working Group made up of Caltrans and County Transportation Commission (CTC)
- Limited ITS Maintenance Resources
- Communications standards – XML Regional Approach
- Did not fully examine ITS use for Emergency Management

The SCAG Regional ITS Architecture includes all six counties within its jurisdiction: Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial. The region's ITS architecture is a framework for ensuring institutional agreement and technical integration of technologies for the implementation of projects or groups of projects under an ITS strategy. All ITS related projects must be consistent with the SCAG Regional ITS architecture in order to be eligible for federal funds. These projects also must comply with federal system engineering requirements and applicable federal standards. Local components to the ITS architecture exist for Los Angeles County, Orange County, Inland Empire, Ventura County, and Imperial County.

Currently, traffic incidents are responsible for a large proportion of the congestion delay on the region's freeways. In order to mitigate non-recurring congestion, such as traffic collisions, Transportation Management Centers (TMCs) have been established throughout the region. Sensors, Closed Circuit Cameras, news reports and traveler tips are relayed to TMCs who initiate a response, often within the first minute of an incident. Freeway Service Patrols are pre-positioned to further reduce the response time.

The region needs to reduce the number of incidents that occur as well as to continue to reduce the amount of time it takes to clear incidents when they do occur. Special attention should be directed to clearing major incidents including those involving injuries, fatalities, hazardous materials, or large trucks. A regional 5-1-1 system alerts travelers to dangerous road conditions, incidents and general congestion. In the event of an emergency, a reverse 9-1-1 system can notify households of staging locations for evacuations.:

In the SCAG Region, ITS systems may be able to assist in case of emergencies by managing road closures, evacuation management, public transportation security, dissemination of real-time information to motorists and first responder agencies, allocation of resources for responders' ingress and evacuation egress, and provide routing information for out-of-area responders.

In 2008, SCAG updated its ITS Architecture for areas related to security. These systems are considered as a resource and are defined into eight security areas:

1. Disaster Response and Evacuation
2. Freight and Commercial Vehicle Security
3. HAZMAT Security

4. ITS Wide Area Alert
5. Rail Security
6. Transit Security
7. Transportation Infrastructure Security
8. Traveler Security

In 2011, SCAG updated the Architecture again, in part to incorporate Positive Train Control into the regional Architecture in order to increase Rail safety and security.

Deficiency Analysis

A large scale evacuation would be difficult in the SCAG region, because of the severe traffic congestion and mobility issues that exist. Currently, 18.5 million people reside in the region and over 4 million more people are expected to be added by 2035. Among the 50 states, the region would rank 4th in population, after California, Texas, and New York, and ahead of Florida. The region also includes 38,000 square miles and has a diverse geography, ranging from dense urban areas, to mountain ranges, to vast deserts, presenting a large are for emergency responders to service and access. Theoretically, there are three directions to evacuate people from the region in case of a major catastrophic event: east, north and south.

Although the region has extensive experience with natural disasters and has in place formal and informal agreements between emergency responders, a common challenge still remains communications and collaboration for immediate action. Many emergency management service agencies have their individual protocols, but when a multi jurisdictional incident occurs their have been challenges in communication and resource allocation occur.

Federal Requirements

Transportation safety and security emphasis is reflected in the recent transportation authorization bill, known as SAFETEA-LU (Safe, Accountable, Flexible, Efficient Transportation Equity Act – A Legacy for Users), signed into law on August 10, 2005. SAFETEA-LU authorizes the Federal surface transportation programs for highways, highway safety, and transit for the 5-year period, 2005-2009. It specifies that MPOs will develop a metropolitan planning process that provides for consideration of projects and strategies that will “increase the security of the transportation system for motorized and non-motorized users,” as detailed in SAFETEA-LU legislation.

Under SAFETEA-LU, the metropolitan transportation planning process should be consistent with the Strategic Highway Safety Plan, and other transit safety and security planning and review processes, plans, and programs, as appropriate.

SCAG’s Role in Security

SCAG does not have a direct role in first response or emergency management. As a MPO, SCAG can potentially play role in providing a coordinating forum working with the region’s transportation agencies and planning agencies. In this role, SCAG could offer the capacity to identify policy directions and conduct planning regarding resource needs. In addition, the agency’s Geographic Information Systems and transportation modeling expertise offers a regional tool that may support security and emergency management planning and deployment and evacuation preparedness and response.

Information Sharing Role

The region’s transportation system is both an asset that needs to be protected from catastrophic events, as well as a resource used to respond to such events. SCAG’s primary focus is on planning for this transportation system. As the regional planning agency for transportation system, SCAG houses a wealth of transportation related data and information that could be brought to bear in planning for and preparing for emergency events. So, SCAG should be viewed as a resource agency that can provide meaningful assistance in preparing emergency preparedness, prevention and evacuation plans.

Regional Security Planning

While there are a number of agencies that have direct roles in safety and security operations, there is no single entity that focuses on broad policies related to disaster prevention and response within the region. SCAG could partially fill this void in conjunction with its role in security planning as part of its broader transportation planning responsibilities.

SCAG could help bring situational awareness of security to the region for the array of potential disasters. It recognizes the fact that the region's ITS planning and deployments provide an opportunity for the region to leverage this investment to enhance situational awareness and further the efforts of the emergency management community.

SCAG's active role in the security planning process (within the policy arena) would require:

- Emphasizing transportation as a resource and a stakeholder in security planning and operations
- Educating officials about transportation-related issues with regards to safety and security
- Participating in a regional security working group
- Assisting with the identification of opportunities and resources that support emergency management
- Leveraging federal funds to support security preparedness
- Increasing its knowledge of best practices and how to implement them, and then identifying its role with regard to their implementation
- SCAG would also increase its role as a data source and further serve as a clearinghouse for various types of data sets.[16]
- SCAG should play a role in supporting situational awareness for safety and security purposes by using geospatial data.

[16] In its Ten Year Strategic Plan, SCAG has indicated that it wished to be a central source for data and information about the southern California Region. SCAG has a strong desire and commitment to be a major data repository. However, SCAG will undertake this role where and if appropriate to facilitate the planning processes and activities of local and regional stakeholders. SCAG goal is to be an acquirer and source for regional level data and information.

Regional Preparedness

SCAG's regional preparedness goal is to prevent, protect, respond, and recover from major human-caused or natural events in order to minimize the threat and impact to lives, property and the regional economy. Its transportation security planning plans will help ensure that there is a productive movement of persons and goods if a disastrous event strikes the region. SCAG has the following opportunities to elevate its role in the region as a policy forum and data clearinghouse:

- Develop proactive transportation security strategies that support economic vitality in the region
- Enhance the effectiveness of agencies responsible for security preparedness and emergency response
- Ensure that regional transportation technology investments meet the needs of emergency responders through interoperable, robust, and strategically redundant ITS and communications infrastructure
- Provide a regional forum for members of the transportation and emergency management communities to coordinate transportation and security initiatives, and to reach agreement on how to work more closely together during the decision notification process prior to and following an event
- Update the regional ITS Architecture and associated County architectures, describing specific systems interoperability requirements to support regional safety and security objectives;[17] and
- Satisfy SAFETEA-LU requirements for regional transportation planning to incorporate security considerations.

In 2008, SCAG began working with the FEMA and local stakeholders towards developing the (draft) Southern California Catastrophic Emergency Preparedness Plan. The Plan looked at possible damage from a major earthquake, the resources the region would need and have available to both respond and recover. The draft document is currently being finalized by FEMA.

[17] The ongoing investment in ITS region-wide provides a resource that needs to be recognized and leveraged for enhancing situational awareness and analysis capabilities.

The Plan examines the initial impacts, inventory of resources, care for those wounded and homeless and developed a long term recovery process. The process of Long-Term Regional Recovery (LTRR) provides a mechanism for coordinating Federal support to State, tribal, regional, and local governments, nongovernmental organizations (NGOs), and the private sector to enable recovery from the long-term consequences of extraordinary disasters. The LTCR process accomplishes this by identifying and facilitating availability and use of sources of recovery funding, and providing technical assistance (such as impact analyses) for recovery and recovery planning support. "Long Term" refers to the need to re-establish a healthy, functioning region that will sustain itself over time. Long term recovery is NOT debris removal and restoration of utilities, which are considered immediate or short-term recovery actions.

Once a disaster has been proclaimed, the LTRR process may be activated for incidents that require a coordinated Federal, State, tribal, regional and local government response to address significant long-term impacts (e.g., impacts on housing, government operations, agriculture, businesses, employment, regional infrastructure, the environment, human health, and social services) to foster sustainable recovery. The three main focus areas of LTRR are:

- Housing
- Infrastructure (including transportation)
- Economic Development

When a disaster occurs, the initial operational focus is centered on Response Activities. This effort may last from a few hours to an extended period of time (several days or longer) depending on the situation. SCAG's response during this period is to coordinate the funding of regionally significant transportation infrastructure repairs. As Response activities begin to taper off and non-life safety issues begin to be addressed, the operational focus begins to shift from Response to Recovery. Federal and State support will be heaviest during the beginning phase of the recovery effort when:

- Long-term impact analyses are performed;
- When necessary technical support to establish local long-term recovery strategies and/or plans is provided;
- When coordination of long-term recovery resources needed by the region to launch its recovery efforts are complete.

State and Federal support lessens by the later stages of the LTRR process once the region has sufficient capacity to implement its long term recovery plan.[18]

Promoter of Regional ITS Solution

SCAG also envisions to develop a thorough Intelligent Transportation System (ITS), as it controls the regional ITS architecture, funding, and programming. Major elements of its role include:

- Identifying more command and control for Critical Transportation Infrastructure (CTI)
- Developing mechanisms to make data available through Traffic Management Centers (TMC) to assist first responders and training first responders to take advantages of these resources
- Identifying system detection gaps and using this to prioritize funding
- Prioritizing command and control infrastructure through funding
- Supporting County Office of Emergency Services through the programming and planning of funding to TMCs and other activities

Continuity of government is another area SCAG may be able to provide leadership within the region. There is a lack of agreements between agencies for mutual aid (in many cases, especially in the transportation arena). SCAG could play a role to facilitate this process and identify needs and prioritize agreements and planning at the regional and sub-regional level between agencies, particularly for long-term recovery after events.

Regional Provider of Data and Information

In the Ten Year Strategic Plan: Goals and Strategies, SCAG indicates that it wishes to be a central source for data and information about the Southern California Region. SCAG has a strong desire and commitment to be a major data repository. However, SCAG will undertake this role where and if appropriate to facilitate the planning processes and activities of local and regional stakeholders. SCAG's goal is to be an acquirer and source for regional level data and information. This roles is consistent with the one mentioned earlier in this section.

[18] Adapted from Draft Southern California Catastrophic Preparedness Plan, IWG 14 – Staff Estimate.

Several relevant transportation and security planning documents illustrate that SCAG has a challenging task in serving the region. It also has a tremendous opportunity to not only serve the region in transportation security planning efforts, but to serve as an example for the rest of the nation. As mentioned above, federal mandates have recently passed to make security planning part of the purview of MPOs. However, the mandates do not clearly delineate the roles and steps of MPOs. Essentially, SCAG will be breaking new ground with its role as a MPO in the arena of transportation security planning.

Transportation Security Strategic Plan

This final section is intended to summarize the existing and future conditions set forth in the previous sections. This strategic plan is meant as a guide for envisioning transportation security planning throughout the SCAG region.

Vision

The vision is to define security transportation planning as mandated by federal law that does not hinder the activities of existing emergency stakeholders but rather assist them in the policy arena and situation awareness through vast repository of data and information on the region. Essentially, SCAG aims to improve the capabilities of local and county governments to better protect its region's transportation systems and critical infrastructure, as well as to enhance the overall level of preparedness for responding to harmful incidents or disasters.

Goals and Objectives

- Ensure transportation safety, security, and reliability for all people and goods in the region.
- Prevent, protect, respond to, and recover from major human-caused or natural events in order to minimize the threat and impact to lives, property, the transportation network and the regional economy.

Outcomes

- Increase per capita funding for transportation system maintenance and preservation programs.
- Increase per capita funding for Intelligent Transportation Systems projects that enhance or benefit regional transportation security.
- Encourage all local government agencies and organizations to be involved in improving emergency preparedness coordination, collaboration and flexibility.

Policies and Recommendations

SCAG has developed an action plan and constrained policies detailing nine measures that the agency will undertake in the regional transportation security planning.

1. SCAG should help ensure the rapid repair of transportation infrastructure in the event of an emergency.
   a. SCAG, in cooperation with local and state agencies, should identify critical infrastructure needs necessary for emergency responders to enter the region, the evacuation of affected facilities and the restoration of utilities.
   b. SCAG, in cooperation with CTCs, California, and the Federal Government, should develop a transportation recovery plan for the emergency awarding of contracts to rapidly and efficiently repair damaged infrastructure.
2. SCAG should continue to deploy and promote the use of intelligent transportation system technologies that enhance transportation security.
   a. SCAG should work to expand the use of ITS to improve surveillance, monitoring and distress notification systems and to assist in the rapid evacuation of disaster areas.
   b. SCAG should incorporate security into the Regional ITS Architecture.
   c. Transit operators should incorporate ITS technologies as part of their security and emergency preparedness and share that information with other operators.
   d. Aside from deploying ITS technologies for advanced customer information, transit agencies should work intensely with ethnic, local and disenfranchised communities through public information/outreach sessions ensuring public participation is utilized to its fullest. In case of evacuation, these transit dependent persons may need additional assistance to evacuate to safety.
3. SCAG should establish transportation infrastructure practices that promote and enhance security.

   a. SCAG should work with transportation operators to plan and coordinate transportation projects, as appropriate, with the Department of Homeland Security grant projects, to enhance the regional transit security strategy (RTSS).
   b. SCAG should establish transportation infrastructure practices that identify and prioritize the design, retrofit, hardening, and stabilization of critical transportation infrastructure to prevent failure, to minimize loss of life and property, injuries, and avoid long term economic disruption.
   c. SCAG should establish transportation infrastructure practices that identify and prioritize the design, retrofit, hardening, and stabilization of critical transportation infrastructure to prevent failure, to minimize loss of life and property, injuries, and avoid long term economic disruption.
4. SCAG should establish a forum where policy-makers can be educated and regional policy can be developed.
   a. SCAG should work with local officials to develop regional consensus on regional transportation safety, security, and safety/security policies.
5. SCAG will help enhance the region's ability to deter and respond to acts of terrorism and human-caused or natural disasters through regionally cooperative and collaborative strategies.
   a. SCAG should work with local officials to develop regional consensus on regional transportation safety, security, and safety/security policies.
   b. SCAG should encourage all SCAG elected officials to be educated in National Incident Management System (NIMS).
   c. SCAG should work with partner agencies, federal, state and local jurisdictions to improve communications and interoperability and to find opportunities to leverage and effectively utilize transportation and public safety/security resources in support of this effort.
6. SCAG will work to enhance emergency preparedness awareness among public agencies and with the public at large.
   a. SCAG should work with local officials to develop regional consensus on regional transportation safety, security, and safety/security policies.
   b. SCAG should work to improve the effectiveness of regional plans by maximizing the sharing and coordination of resources that would allow for proper response by public agencies. SCAG should encourage and provide a forum for local jurisdictions to develop mutual aid agreements for essential government services during any incident recovery.
7. SCAG will help to enhance the capabilities of local and regional organizations, including first responders, through provision and sharing of information.
   a. SCAG should work with local agencies to collect regional GeoData in a common format, and provide access to the GeoData for emergency planning, training and response.
   b. SCAG should develop and establish a regional information sharing strategy, linking SCAG and its member jurisdictions for ongoing sharing and provision of information pertaining to the region's transportation system and other critical infrastructure.
8. SCAG should provide the means for collaboration in planning, communication, and information sharing before, during, or after a regional emergency.
   a. SCAG should develop and incorporate strategies and actions pertaining to response and prevention of security incidents and events as part of the on-going regional planning activities.
   b. SCAG should offer a regional repository of GIS data for use by local agencies in emergency planning, and response, in a standardized format.

REGIONAL TRANSPORTATION PLAN
2012–2035
SUSTAINABLE COMMUNITIES STRATEGY
Towards a Sustainable Future

RTP

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