



Annex to 2010 Association of Bay
Area Governments
Local Hazard Mitigation Plan
Taming Natural Disasters

Metropolitan Transportation
Commission (MTC)



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Introduction

Created by the state Legislature in 1970 (California Government Code § 66500 et seq.), the Metropolitan Transportation Commission (MTC) is the transportation planning, coordinating and financing agency for the nine-county San Francisco Bay Area. MTC functions as both the regional transportation planning agency - a state designation - and for federal purposes, as the region's Metropolitan Planning Organization (MPO). As such, it is responsible for the Regional Transportation Plan, a comprehensive blueprint for the development of mass transit, highway, airport, seaport, railroad, bicycle and pedestrian facilities. The Commission also reviews requests from local agencies for state and federal grants for transportation projects to determine their compatibility with the plan.

The Commission's work is guided by a 19-member policy board. Fourteen commissioners are appointed directly by local elected officials (each of the five most populous counties has two representatives, with the board of supervisors selecting one representative, and the mayors of the cities within that county appointing another; the four remaining counties appoint one commissioner to represent both the cities and the board of supervisors). In addition, two members represent regional agencies — the Association of Bay Area Governments and the Bay Conservation and Development Commission. Finally, three nonvoting members have been appointed to represent federal and state transportation agencies and the federal housing department.

Carrying out the Commission's directives is a staff of 160 persons headquartered at the Joseph P. Bort MetroCenter in Oakland, California.

MTC is three agencies in one: MTC, as well as the Bay Area Toll Authority (BATA) and the Service Authority for Freeway and Expressways (SAFE). These agencies have a broad portfolio of duties and a shared mission: to knit the region's 4,000 buses, trains and ferries, 1,400 miles of highway, 20,000 miles of local streets and roads, and seven state owned toll bridges into a smooth-functioning network that gets the region's nearly 7 million residents where they need to go, when they need to get there. In its role as BATA, the agency is also responsible for managing a cooperative agreement with Caltrans for delivering the Regional Measure 1 (RM 1) bridge improvement program and coordinating the issuance of debt financing to deliver RM 1 projects, which includes the seismic retrofit of several Bay Area bridges.

The MTC offices are located in the city of Oakland in the Joseph P. Bort MetroCenter. In addition to housing MTC, ABAG and BART staff, as a public facility, the MetroCenter hosts a variety of public meetings including board and commission meetings, public hearings on planning, land use and transportation issues, hazard mitigation training and seminars. The building has a multi-purpose auditorium for hosting large meetings, and 8 conference rooms for smaller meetings. Most of the meetings are noticed so the public can attend with an average attendance of more than 20,000 attendees annually.



The MetroCenter also houses the following critical services that facilitate disaster and emergency response activities:

MTC's Emergency Operations Center (EOC)

Together with the California State Department of Transportation (Caltrans), the California Emergency Management Agency (CalEMA), and major Bay Area transportation agencies, MTC developed the Trans Response Plan (TRP) which sets a conceptual framework for a comprehensive and timely response by San Francisco Bay Area transportation providers to any major earthquake or disaster in the region. The TRP has been expanded into the Regional Transportation Emergency Management Plan (RTEMP) that more clearly defines the roles and responsibilities of the region's transportation agencies. The RTEMP/TRP calls for MTC to coordinate the transportation network and to function as the regional transportation information clearinghouse. MTC performs these roles in its EOC which houses vital communications equipment, including the California Emergency Services Radio System (CESRS) which serves as a backup communications tool if phone land lines are disrupted. CESRS has 21 interconnected sites around the state (and 4 stand alone radios not interconnected). It is used for radio coordination between OES staff, and state facilities in Sacramento, Fresno, Los Alamitos, Oakland, San Diego and San Luis Obispo; and between our Regional Emergency Operations Centers (EOCs) [in Oakland, Los Alamitos, and Sacramento] and around 30 county EOCs. The CESRS transmitter is located in the MetroCenter's roof and the communications device is located in the 3rd floor EOC. Additionally, the MTC EOC is equipped with laptops, a television, and a stationary satellite phone that enables emergency communications with CalEMA's Regional Emergency Operations Centers, the county operational area EOCs as well as the EOC's of Caltrans and the major transit agencies.

BART's Emergency Operations Center (EOC)

BART's EOC is equipped with Status Display Boards, computers, a television, extra telephone lines, portable radios and other emergency equipment. The EOC will be used to coordinate, manage and provide mitigation planning for any major or catastrophic emergency.

BART's Train Operations Control Center (OCC) Backup Facility

The OCC is currently located adjacent to the Lake Merritt BART Station near the EOC across the street from the MetroCenter. BART's OCC is used for day-to-day train operations and is capable of managing local emergency events that occur on the system.

Server Equipment for Web-hosting and Online Services

The MetroCenter currently houses several computer servers for ABAG and MTC that provide online access to local government agencies and public with a wealth of



information including planning activities, mitigation and hazard maps, geographical information system maps to find statistical and economic data, project listings that have received federal/state /local funding and other information databases that are unique to these agencies.

The Regional Planning Process

MTC participated in various ABAG workshops, conferences, and meetings, including:

- ◆ Transit Workshop on February 12, 2009 review draft mitigation strategies and reach consensus on priorities for mitigation;
- ◆ Four Lifeline Infrastructure and Hazards Committee meetings to review draft mitigation strategies and chapters;
- ◆ 2 ABAG Regional Planning Committee meetings
- ◆ 2 Transportation Response Plan Steering Committee meetings

For more information on these meetings and for rosters of attendees, please see Appendix A and H in the ABAG Multi-Jurisdictional Local Hazard Mitigation Plan 2010 (MJ-LHMP). In addition, MTC has provided written and oral comments on the multi-jurisdictional plan.

The Local Planning Process

Program managers from various MTC departments, including staff from the Highway and Arterial Operations and Administrative and Technical Services departments, met to discuss MTC's mitigation priorities and identify key mitigation projects during 2009 and 2010. At these meetings, all of the mitigation strategies were reviewed; the group also identified new strategies from the spreadsheet that would be appropriate as initiatives for MTC to undertake moving forward.

The tentative decision on priority was made based on a variety of criteria, not simply on an economic cost-benefit analysis. These criteria include being technically and administratively feasible, politically acceptable, socially appropriate, legal, economically sound, and not harmful to the environment or our heritage.

Review and Incorporation of Existing Information

This process for assigning priorities involved consideration of both the hazard and risk information developed by ABAG and discussed in the overall multi-jurisdictional Local Hazard Mitigation Plan, as well as the structural assessments of the MetroCenter building, a facility jointly owned by MTC, ABAG and BART. These meetings also discussed MTC's *Overall Work Plan* as well how these plans could be best integrated.



Process for Updating Plan Sections

MTC participated in the 2005 multi-jurisdictional Local Hazard Mitigation Plan, and this Annex is an update of the Annex prepared for the 2005 plan. The lead in updating this Annex was taken by the Director of Administrative and Technology Services, based on feedback obtained from the staff who participated in the mitigation priority setting process.

The Planning Process section has been prepared to reflect the updated Annex. However, as noted earlier, the process of assigning priorities was simplified because priorities had already been assigned in 2005.

The Hazard and Risk Assessment section has been updated to incorporate the new mapping compiled by ABAG for the overall multi-jurisdictional Local Hazard Mitigation Plan. The specific information on the MetroCenter building is revised because the building, as noted, has been retrofitted.

The Mitigation Goals and Priorities section is greatly expanded. In the 2005 Annex, the focus was entirely on funding the needed seismic retrofit of the MetroCenter building. This Annex takes a much more comprehensive approach to mitigation.

The Plan Maintenance and Update section is essentially the same as the 2005 Annex, with the addition of some ideas for improving public participation in the process.

Public Meetings

MTC held three opportunities to seek input from the public on its own mitigation strategies.

- (1) At a publicly noticed workshop jointly held by MTC, ABAG, and several transit districts on September 22, 2009, the strategies and the background for setting strategy priorities was again discussed. The power point for the meeting is available upon request. Members of the public did not provide any comments on the priorities or the method of creating the Local Hazard Mitigation Plan Update.
- (2) Two Transportation Response Plan (TRP) Steering Committee meetings were held to solicit input from transit operators and other interested agencies.
- (3) Finally, MTC's strategy priorities were posted and advertised on its website, at <http://quake.abag.ca.gov/mitigation> beginning on August 5, 2009. No comments were received from the public regarding MTC's priorities for mitigation.

Hazard and Risk Assessment

The ABAG multi-jurisdictional Local Hazard Mitigation Plan, to which this is an Annex, lists nine hazards that impact the Bay Area, five related to earthquakes (faulting, shaking, earthquake-



induced landslides, liquefaction, and tsunamis) and four related to weather (flooding, landslides, wildfires, and drought). All of these impact MTC's planning region. However, in MTC's role, as the regional transportation planning agency, drought has no impact on the provision of transportation services. All relevant reports developed by MTC have been incorporated into this plan. No additional reports describe the hazard or risk to the MTC region.

MTC, ABAG and BART are owners of the MetroCenter regional center. MTC and ABAG own no other facilities. Hazards at the MetroCenter facility are:

Earthquake: The MetroCenter is located 5 miles from the Hayward fault and 15 miles from the San Andreas fault. It is in the next to highest category on the ground shaking potential map and outside the zone of earthquake-induced landslides on flat ground. While the MetroCenter is not in the CGS Liquefaction Zone, it is shown as subject to liquefaction to the USGS Liquefaction Susceptibility Map.

Tsunamis: The December 2009 version of the CalEMA tsunami evacuation planning maps indicated that the MetroCenter facility is not in this area. Tsunami evacuation planning maps were not available inside the San Francisco Bay in 2005.

Flooding: The MetroCenter is outside the 100-year and 500-year flood zones.

Landsliding: The MetroCenter is located on ground that is designated as flat land.

Wildfire: The wildland fire threat is moderate but the MetroCenter is located within the Wildland Urban Interface WUI-Threatened area.

Dam-Failure Inundation: The MetroCenter is not subject to dam-failure inundation.

Delta Levee Failures: The MetroCenter facility is not in an area protected by a levee, or in the Delta.

Drought: The operations of the MetroCenter are not significantly impacted by drought conditions.

Hazards Conclusion: The most significant hazard to the MetroCenter is earthquake shaking. This conclusion is based on the exposure information summarized above, the facility assessment conducted prior to the retrofit of the facility, and nonstructural damage that occurred as a result of the 1989 Loma Prieta earthquake.

Risk Assessment: The MetroCenter building, when evaluated in 2004, was determined to be a partial collapse hazard building. (GOVT-a-1). In 2008 the MetroCenter was retrofitted to address its seismic vulnerability (GOVT-a-2)

Repetitive Loss Properties

The MetroCenter building, MTC's only property, is not a repetitive loss property.



Past Occurrences of Disasters (natural and human-induced)

While a number of disasters have affected the City of Oakland and Alameda County, where the MetroCenter is located, only a few of those have affected this building directly.

The MetroCenter sustained some minor damages from the Loma Prieta earthquake (broken glass, fallen ceiling tiles and fluorescent light fixtures, unsecured furniture), but many other buildings in downtown Oakland were more severely damaged. This event was the impetus for retrofitting the building.

The Mesherle shooting in January 2009 occurred during a holiday when the MetroCenter offices were closed; however, when the subsequent trial verdict was released on July 8, 2010, the MetroCenter was evacuated due to expected civil disturbance.

Information on disasters declared in the Bay Area is in Appendix D.

More information on State and Federally declared disasters in Alameda County can be found at <http://quake.abag.ca.gov/mitigation/ThePlan-D-Version-December09.pdf>

National Flood Insurance Program

As joint powers agency, MTC is not eligible to participate in the National Flood Insurance Program (NFIP).

Mitigation Goals

The goal of the ABAG MJ-LHMP is to maintain and enhance a disaster-resistant region by reducing the potential for loss of life, property damage, and environmental degradation from natural disasters, while accelerating economic recovery from those disasters. This goal is unchanged from the 2005 plan and continues to be the goal of MTC's in designing its mitigation program.

MTC has the additional goal of working with the TRP Steering Committee (a group composed of representatives from the major transportation agencies in the region) to reduce the impact of natural disasters on transportation agency assets and facilities so that the region's transportation network can continue to operate and provide mobility in and out of the region.

Mitigation Activities and Priorities

Evaluation of Progress from 2005 Plan

In 2005, MTC identified one specific mitigation project it wanted to complete. MTC determined that the combination of construction type, age, and shaking exposure to MetroCenter was significant. MTC joined with ABAG and the Bay Area Rapid Transit District (BART) to apply



for a Pre-Disaster Mitigation grant to retrofit this building. MTC applied for, and received, approximately \$3 million dollars in the form of a PDM grant from FEMA for a seismic upgrade to the MetroCenter facility. The entire project cost approximately \$5 million and was completed in 2008. (GOVT a-2; INFR a-4)

Future Mitigation Actions and Priorities

As a participant in the ABAG multi-jurisdictional planning process, MTC staff helped in the update and review of the comprehensive list of mitigation strategies in the overall multi-jurisdictional plan. MTC has identified mitigation strategies that the agency will implement on its own or on behalf of RAFC. When reviewing the priorities assigned to individual strategies on the pages that follow, it is important to understand that some strategies are the priorities for the MetroCenter Facility; others fall under MTC acting as the Bay Area Toll Authority (BATA).

The following is a description of specific future mitigation priorities identified by MTC and BATA as well as the proposed implementation method, priority, and existing and potential resources. These strategies relate to mitigation strategies which were identified as *High* or *Very High* in the mitigation strategy spreadsheet. In cases involving the MetroCenter Facility, the responsible department is MTC's Administrative and Technical Services (ATS) Department.

As noted in the Planning Process section, the decision on priority was made based on a variety of criteria, not simply on an economic cost-benefit analysis. These criteria include being technically and administratively feasible, politically acceptable, socially appropriate, legal, economically sound, and not harmful to the environment or our heritage. This process for assigning priorities also involved consideration of both the hazard and risk information developed by ABAG and discussed in the overall multi-jurisdictional Local Hazard Mitigation Plan, as well as the assessments of the MetroCenter building, the only facility owned by MTC. These meetings also discussed the Overall Work Plan as well how these plans could be best integrated.

Future Mitigation Strategies

In addition to local planning, MTC in partnership with ABAG, the Bay Area Air Quality Management District and the San Francisco Bay Conservation and Development Commission (four regional agencies) have teamed with local governments, county congestion management agencies and local planning and public works directors to be actively engaged in preparing a Sustainable Communities Strategy, which integrates transportation, land-use and housing planning. The Strategy will identify specific areas in the nine-county Bay Area to accommodate projected population for the next 25 years; and try to achieve targeted reductions in greenhouse gas emissions from cars and trucks. The benefits of integrated land use and transportation will encourage more complete communities which reduces automobile trips and emissions which, in turn, improves public health. The Strategy will reflect the "Three E" goals of sustainability – Economy, Environment and Equity.



MetroCenter Facility: In its role as the RAFC Building Manager, MTC has prepared a Building Occupancy Recovery Program (BORP) plan for the MetroCenter facility which has been received for approval by the City of San Francisco and forwarded to City of Oakland for their records. BORP permits owners of buildings to hire qualified structural engineers to create facility-specific post-disaster inspection plans and allows these engineers to become automatically deputized as City/County inspectors for these buildings in the event of an earthquake or other disaster. This program allows rapid re-occupancy of critical infrastructure buildings. (INFR f-1) Funding for this activity is available.

MTC is working on completing a comprehensive program to identify and mitigate problems with facility contents, architectural components, and equipment that would prevent its critical MetroCenter facility from being functional after major natural disasters (GOVT a-4). Additional grant funding is needed for the activity so it will not be carried out as part of the normal maintenance schedule of the building.

Recovery Planning: While MTC has established a framework and process for pre-event planning for post-event recovery that specifies roles, priorities, and responsibilities of various departments within its organization, that process needs more work. MTC is working to develop a more robust continuity of operations plan that outlines the major issues and tasks that are likely to be the key elements of recovery, as well as to integrate this planning into response and mitigation planning (GOVT b-2, b-3, b-4, and b-5). Work on this task has started.

Climate Change Mitigation: MTC is working with ABAG, the Bay Area Air Quality Management District, and the Bay Conservation and Development Commission (BCDC) to reduce greenhouse gas emissions of the region's transportation system. This process has started.

Need for More Research: MTC has encouraged research on ways to further strengthen transportation systems so that they are less vulnerable to damage in disasters. This activity is particularly important in the on-going role of MTC acting as the Bay Area Toll Authority (BATA) to encourage strengthening of the transportation systems including seismic retrofit of Bay Area bridges (INFR a-7). MTC also understands the importance of examining the interrelationships among the various infrastructure systems.

On-Going Mitigation Strategies

MTC has many on-going mitigation programs which help to create a more disaster-resistant region. The following list highlights both those programs that identified as *Existing Programs* in the mitigation strategy spreadsheet and those that were identified as *Existing Programs, underfunded*. It is MTC's priority to find additional funding for these on-going programs over time.



MetroCenter Facility: MTC applied for, and received \$3 million dollars in the form of a PDM grant from FEMA for a seismic upgrade to the MetroCenter facility. The entire project cost approximately \$5 million and was completed in 2008. (GOVT a-2; INFR a-4)

Transportation Response Planning: MTC developed the Trans Response Plan/Regional Transportation Emergency Management Plan (TRP/RTEMP) which sets a conceptual framework for a comprehensive and timely response by Bay Area transportation providers to any major earthquake or disaster in the region. The RTEMP process requires MTC to serve as the regional transportation information clearinghouse where information on the region's roadway & freeway network, bus, rail, ferry, airport and seaport facilities can be centralized and coordinated in order to provide immediate and near-term response to the disaster. The result is intended to be a coordinated transportation response within the overall Statewide Emergency Management System (SEMS) implemented by Cal EMA (INFR a-17). The TRP Steering Committee also worked together to develop and review the transportation portion of the multi-jurisdictional Local Hazard Mitigation Plan. Recently, MTC equipped the major transit operators with mobile and stationary satellite phones to strengthen communications in the event of significant power failures that could occur following an earthquake (GOVT c-7, c-8).

Recovery Planning: As the Regional Transportation Information Clearinghouse, MTC has identified pre- and post-disaster roles and responsibilities within its organization and conducts annual training (GOVT b-1).

Public Information Activities: MTC provides materials to the public related to family and personal planning for delays due to traffic or road closures. MTC-funded 511 (telephone) and 511.org at <http://www.511.org/> provide real-time traffic data including freeway status, transit schedules, accident information for the nine-bay area county region (INFR g-2). In its regional planning and coordination role, MTC also facilitates the Joint Information Center/Joint Information System (JIC/JIS) which brings together the Public Information Officers from transportation agencies in the region to ensure that public information being distributed is consistent.

Transportation System Mitigation Funding: MTC, as BATA, is responsible for managing a cooperative agreement with Caltrans for delivering the Regional Measure (RM1 and RM2) bridge improvement programs and coordinating the issuance of debt financing to deliver RM1 & RM2 projects, which includes the seismic retrofit of several bay area bridges (except for the Golden Gate Bridge, which is administered by the GGBHTD) (INFR b-1).

Efforts Related to Climate Change: Approximately half of the greenhouse gas emissions in the Bay Area are related to transportation. Thus, the largest impact that MTC can have on weather-related hazards, such as wildfire and flooding, is indirectly through reducing greenhouse gas emissions. Smart Growth Preamble and Policies adopted by MTC, ABAG, BAAQMD and BCDC call for retrofit of infrastructure that serves urban areas over constructing new infrastructure to serve outlying areas in an effort to reduce those emissions. (LAND f-1)



Incorporation into Existing Planning Mechanisms

As shown in the attached list, MTC's specific mitigation strategies and priorities will be implemented as part of the MTC's annual *Overall Work Program* which is reviewed and approved by the federal government. The *Overall Work Program* identifies the specific tasks that MTC will accomplish each year. There are no other planning mechanisms available to MTC that are appropriate to incorporate this plan.

The final strategies and Annex will be adopted in the same resolution adopting the overall LHMP following pending adoption by FEMA.

Ongoing integration of the policies and programs identified in this Local Hazard Mitigation Plan will occur at MTC within the Administrative and Technical Services (ATS) Section and the Regional Administrative Facility Corporation (RAFC). There is no Regional General Plan in the Bay Area to which MTC could annex this Local Hazard Mitigation Plan. Thus, the *Overall Work Program* is the most efficient way to leverage the strategies contained in this plan to ensure speedy and complete implementation.

MTC will continue to work with the transit districts in the Bay Area to encourage them to adopt the Local Hazard Mitigation Plan and to assist them in integrating it into their overall planning process. This effort is specified in the Mitigation Strategy section under GOVT-e-1 and GOVT-e-2.

The Plan Update Process

As required by Disaster Mitigation Act of 2000, MTC will update this plan annex at least once every five years, by participating in a multi-agency effort with ABAG and other agencies to develop a multi-jurisdictional plan.

The ATS Section of MTC will ensure that monitoring of this Annex will occur. The plan will be monitored on an on-going basis. However, the major disasters affecting our region, legal changes, notices from ABAG as the lead agency in this process, and other triggers will be used. For example, MTC and the Bay Area Toll Authority (BATA) formed the Bay Area Headquarters Authority (BAHA), a joint exercise powers authority created for the purpose of planning, acquiring, and developing office space and facilities and undertaking related activities, and purchased 390 Main Street in San Francisco as the new regional government headquarters facility that will eventually house MTC and two other regional agencies (the Bay Area Air Quality Management District and the San Francisco Bay Conservation and Development Commission). BAHA plans to evaluate the building for its compliance with current building codes and to seismically retrofit the building during the renovation process. BAHA, through MTC, will also prepare a Building Occupancy Recovery Program (BORP) plan for the new



regional government center similar to the existing BORP plan that is currently in place for the MetroCenter facility.

Strategies that impact Land Use will be reviewed and monitored by the Planning Section of MTC under the Smart Growth initiatives and policies adopted by impacted regional agencies. Those strategies that impact public infrastructure will be reviewed and monitored by MTC acting as BATA and in working with Caltrans and other transportation stakeholders.

If no interim update has occurred, MTC's ATS staff will contact ABAG four years after this plan is approved to ensure that ABAG plans to undertake the plan update process. If so, MTC again plans to participate in the multi-jurisdictional plan. If ABAG is unwilling or unable to act as the lead agency in the multi-jurisdictional effort, other agencies will be contacted, including the Coastal Region of CalEMA and the Alameda County Emergency Management Agency office. Counties should then work together to identify another regional forum for developing a multi-jurisdictional plan.

Public input/comments will be sought for any plan changes. A public notice will be posted prior to the meeting to announce the comment period and meeting logistics. MTC is committed to improving public participation in the update process over the next five years. MTC also has a role in coordinating public participation efforts for this planning among all of the transit districts.

Mitigation Plan Point of Contact

Primary :

Name: Teri Green

Title: Director, Administrative and Technology Services

Mailing Address: 101 Eighth Street, Oakland, California 94607

Telephone: 510-817-5750

Email: Tgreen@mtc.ca.gov

Secondary:

Name: Nancy W. Okasaki

Title: Transportation Planner

Mailing Address: 101 Eighth Street, Oakland, California 94607

Telephone: 510-817-5759

Email: Nokasaki@mtc.ca.gov



Exhibit A - MTC Regional Mitigation Strategy Spreadsheet

[Included on Multi-Jurisdictional Plan CD and at <http://quake.abag.ca.gov/mitigation/strategy.html>]