

# BAY AREA REGIONAL DISASTER RESILIENCE INITIATIVE

## *Draft Action Plan Framework*

*This outline of topics and respective issues is the initial draft framework for the Bay Area Disaster Resilience Action Plan—a roadmap of activities that will build on what already has been accomplished by jurisdictions and organizations to improve our region’s ability to recover from a major earthquake or other disaster. This framework will serve as the scaffolding for the Action Plan, which will be constructed over the next year through a “Whole Community” process that involves all interested stakeholders from throughout the 12-County Bay Area region—businesses, utilities, non-profits, community groups and institutions, schools and other academic institutions, local governments, and tribal, state, and federal agency partners. The framework will also be used for a supporting Gap Analysis that will inventory current Bay Area preparedness, mitigation, response, recovery and other capabilities that have a direct bearing on recovery in order to identify areas that still need attention while avoiding recreating the wheel.*

- 1. Significant Events that could Impact the Bay Area’s Economy, Environment, and the Health, Safety and Well Being of Citizens** (*e.g., earthquakes and tsunamis; firestorms, prolonged rain events with widespread flooding and landslides; pandemics, terrorist attacks, events caused by aging infrastructures and systems failures, and technological disasters*)
  - Major all hazards threats and events, natural and manmade, including unanticipated significant events, that would have region-wide impacts and require significant recovery and restoration
  - Current level of understanding of damages and consequences for lifelines, other infrastructures, and housing, commercial, and other structures from these threats and events
  
- 2. Lifeline and Other Infrastructure Dependencies and Interdependencies – Recovery Challenges** (*includes the 18 U.S. Department of Homeland Security infrastructure sectors and also community institutions, schools and academic institutions, housing sector, as well as people—the staff and customers of Bay Area government agencies, businesses, social and other services, individuals and families*)
  - Identification and prioritization of Bay Area critical infrastructures and essential services, including, interdependencies-related vulnerabilities that extend outside the Bay Area and cascading impacts that could impede recovery, taking into account supply chains and other supporting services, such as labor unions and construction firms
  
  - Awareness of lessons learned from recent disasters

- Status of regional interdependencies analysis capabilities and expertise
  - Capabilities to ensure confidentiality of proprietary and sensitive infrastructure, health, and other data
- 3. Preparedness and Mitigation to Better Withstand and Rapidly Recover** (*actions that can be taken before a major event to lessen the consequences, stem cascading impacts, expedite recovery, and keep down recovery costs*)
- Jurisdiction and organizational plans and procedures
  - Security and physical protection and prevention measures
  - Guidelines and Standards
  - Pre-event mitigation actions and financial, political and cultural challenges (e.g., retrofitting/hardening housing, other structures and critical assets; creating backup/redundant systems and remote operations; upgrading aging infrastructures; incentivizing broader insurance coverage)
- 4. Regional Response Policies, Plans, and Solutions that Affect Recovery** (*focus on those areas of disaster response that would have a direct impact on how quickly the Bay Area can recover with limited economic, social, environmental consequences*)
- Cooperation and coordination among jurisdictions on plans, procedures, and activities
  - Evacuations and re-entry plans
  - Short-term sheltering, including non-traditional sheltering alternatives
  - Infrastructure interdependencies impacts that can complicate response
  - Post-disaster lifeline resources (food, water, fuels, pharmaceuticals, etc.)
  - Certification of response and other essential workers for site access
  - Hospital and healthcare surge capacity
  - Security for hospitals, pharmacies, and grocery stores
  - Arrangements for at risk populations (infants and children, assisted living/nursing home residents, disabled, homeless, and economically stressed individuals; prison inmates)

- Providing information and communicating with non-English speaking groups
- Missing persons and mortuary issues
- Arrangements for pets, livestock, and disposal of dead animals
- Mutual aid agreements (cross-jurisdiction and multi-state)
- Availability of emergency managers and first responders
- Communicating with responders, utilities and other service providers, broader business community, volunteer-based organizations, and general public
- Debris management for response, including temporary siting
- Resource requirements and management
- Logistics and supplies availability

**5. Recovery Priorities** *(focus on the range of immediate to longer-term recovery needs, recognizing that these needs and objectives will change over time from immediate post-event)*

- Planning for recovery
- Roles and missions (federal, state, tribal, local, private sector, non-profit/community)
- Recovery management structure—what organizations, how organized, and which mechanisms will be used (or need to be created)
- Decision-making (cross-jurisdiction, cross-sector, cross-discipline)
- Cooperation and coordination
- Prioritization of service restoration
- Resource requirements and management
- Damage assessment, inspection, and availability and certification of personnel
- Hazardous materials handling
- Debris removal

- Decontamination of soil, buildings and assets, reservoirs/waterways
  - Monitoring of air and water quality
  - Managing volunteer aid and donations
  - Returning to operation businesses, schools, and faith-based facilities that enable communities and the economy to rebound
  - Identifying and securing government and other types of assistance
  - Keeping businesses in the Bay Area—assistance and incentives
- 6. Rebuilding and Reconstruction Challenges** *(focus on long-term (post-event to ten years or more) activities and issues that must be addressed to rebuild housing, businesses, and infrastructure and enable communities to return to a “new normal” and receive financial reimbursements)*
- Long-term housing needs
  - Other issues involved in design, reconstruction and rebuilding to achieve a “new normal”
  - Prioritization of reconstruction of infrastructure, housing, commercial facilities, and other buildings in an era of limited resources
  - Coordination structure and mechanisms that will be used for long-term reconstruction activities and projects—what organizations, how organized, and which mechanisms will be used (or need to be created)
  - Decision-making (cross-jurisdiction, cross-sector, cross-function)
- 7. Regional Recovery Roles, Responsibilities, and Authorities to Enable Collective Recovery** *(developing the cooperative multi-jurisdictional, cross-sector, and cross-discipline process for addressing region-wide priorities when response and the Standardized Emergency Management System (SEMS) ends)*
- Defining and understanding of recovery roles, responsibilities, and authorities of federal, state, tribal, and local agencies
  - Defining and understanding recovery roles and responsibilities of private sector organizations, non-profits, community institutions, and other groups

- Organizational structures that could enable effective recovery/restoration and the transition from response to recovery—what entities would be involved, how organized, and how would these structures work?
  - Recovery decision-making (cross-jurisdiction, cross-sector, cross-discipline)—what organizations would be involved and what mechanisms used?
  - Jurisdictional authorities, and cultural and other challenges to regional cooperation on disaster recovery
- 8. Environmental Resilience** *(covers environmental hazards, potential consequences, capabilities and timeframes for cleanup to enable repopulation of affected areas, and other environmental issues that affect recovery and restoration)*
- Types of environmental impacts (e.g., hazardous materials, contamination of buildings and assets, soil, water systems; sewage releases; chemical, biological, and radiological events)
  - Consequences for the Delta and other water ways and water supplies, fish and wildlife
  - Organizational roles and authorities in environmental damage assessment and re-occupancy of impacted areas
    - Federal government
    - State
    - Tribal
    - Local jurisdictions
    - Private sector
  - Detection, alert and warning, and assessment capabilities, including timeliness
  - Decontamination and hazardous materials disposal capabilities (procedures and technologies)
  - Emergency management preparedness, response, and recovery plans for events with significant environmental impacts
- 9. Communications and Information Sharing for Recovery** *(focus on examining how the “Whole Community” can be engaged in appropriate ways in two-way information sharing)*

*to improve preparedness and facilitate recovery, as well as provide a common operating picture, or situational awareness, to help decision-makers)*

- Multi-jurisdiction from local to state, tribal, and federal agencies and cross-sector
- Local government agencies sharing of information and best practices
- Process—collection, storage, integration, analysis, dissemination, and related security and proprietary data issues
- Utilization of state and municipal information fusion centers
- Innovative ways to use traditional media, social media, and public communications
- Inclusion in information sharing of schools and other institutions, faith-based, and other organizations with significant populations; also among families and individuals
- Health and Healthcare information-related issues
- Communications systems reliability, resilience, and security

**10. Continuity of Operations of Business, Government, and Community Institutions and Social Service Providers** *(focus on the need for individual organizations that are located within the Bay Area to be resilient—to have the continuity plans and capabilities that enables them to deal with disruptions and damage and restore operations and business services as rapidly as possible)*

- Pre-event preparedness and mitigation that affect recovery (addressing interdependencies and supply chains, remote siting, back-up systems, building in redundancies, preservation of vital records, etc.)
- Identification of essential operations and business activities, including supply chains
- External outreach to service providers and customers to address infrastructure interdependencies and associated consequences from major disasters and events
- Operational challenges associated with loss of services and damage to assets
- Assuring essential staff, including technical experts, and general workforce
- Assuring access to information and situational awareness

- Addressing challenges for small and medium businesses (retail, manufacturing, and other commercial firms) and organizations
- Assessment of potential damage or disruptions to operational and business services, including logistics, suppliers, customers, availability of truck drivers, warehouses, etc.
- Telecommuting, including “last mile issue” and teleconferencing issues
- Workforce policy issues (compensation, absences, safe workplace rules, flexible payroll issues, etc.)
- Notification and provision of information to employees
- Training of employees
- Testing of continuity plans and procedures

**11. Creating Disaster Resilient Communities, Families, and Individuals** *(focus on the resilience and recovery capabilities of individuals, families, neighborhoods, communities, and special populations—children, the elderly, and disabled individuals—and the social service and other organizations that serve them)*

- Challenges and needs
- Understanding and dealing with psychological impacts, including enabling individuals to embrace a “new normal” and be willing to help create it
- Identifying and addressing individual and family assistance needs
- Education and academic institutions (daycare centers, schools, colleges and universities, libraries, community centers)
- Faith-based institutions and volunteer organizations
- School and business closures
- Event cancellations (e.g., sporting events, concerts, and other events that contribute to regional identity)
- Insurance issues
- At risk individuals (e.g., elderly, disabled, economically and mentally-stressed)

- Ethnic, cultural, tribal, and other special constituencies and groups
- Individual and family recovery needs

**12. Legal, Regulatory, and Liability Issues that Affect Recovery** *(focus on cross-sector challenges that affect government agencies, businesses, and non-profits)*

- Human resources and other employee issues
- Insurance issues
- Contractual issues (e.g., with suppliers and customers, union-related and tenant issues)
- Challenges associated with meeting regulatory requirements and standards, obtaining waivers and permits, and creating temporary policies and procedures
- Liability associated with preventative medical actions
- Issues involved in competing rights and authorities (land use issues, resident's rights related to housing, and other challenges)
- Privacy issues
- Ethical issues

**13. Public Outreach and Education** *(focus on raising awareness of threats and consequences, addressing public expectations, and effectively communicating what citizens and organizations should do individually and collaboratively to develop disaster resilience)*

- Developing and implementing a coordinated regional public information strategy with focus on different constituency needs: private sector, general public, cultural and other groups
- Communications mechanisms that can be used, including social media, public communications, and other systems
- How to engage and utilize media pre and post-disaster
- Promoting community involvement in disaster recovery
- Developing a "Culture of Preparedness and Resilience" that empowers individuals, organizations, and communities to collaborate to make necessary improvements



**14. Exercises and Training for Recovery** (*focus on need to engage “Whole Community” from neighborhoods to regional, multi-state, and at national-level, and engaging private and non-profits, tribal, and government organizations at all levels*)

- Identifying, and tailoring exercises and training to meet the needs of target audiences—government, business community, utilities, non-profits, tribes, communities, neighborhoods, and residents
- Targeted workshops and exercises that focus on key areas in the Bay Area Disaster Resilience Action Plan, e.g., roles, authorities, and responsibilities, information sharing and communications, response challenges that directly affect recovery, and other specific recovery issues
- Inclusion of private sector and non-profit organizations with government (all levels) and tribes in regional workshops and exercises
- Training on procedures and processes for incident and recovery management that takes into account business interests and perspectives
- Training tools and activities (course curriculum, webinars, workshops, “train the trainers”, etc., that can be incorporated into regional disaster preparedness plans

**15. Specialized Lifeline and Sector-Specific Needs that Affect Recovery and Restoration** (*note: the following lifeline and sector focus areas will be fleshed out, each one having a set of priority issues that will be addressed in the Action Plan*)

- A. Transportation (all modes—road, rail, maritime, waterways, mass transportation, ferries, freight and shipping, including roads, bridges, tunnels)
- B. Energy (electric power, natural gas, fuels, alternative energy sources)
- C. Communications and Critical IT Systems
- D. Water and Waste-Water Systems
- E. Agriculture and Food Industries
- F. Dam and Levees
- G. Seaports
- H. Airports
- I. Hospitals, Healthcare, Public Health, and Emergency Services
- J. Banking, Finance, and Insurance Services

- K. Disaster Supply Chains (drug stores, grocery stores, and temporary food and water distribution, etc.)
- L. Schools/other Academic Institutions
- M. Housing Sector

**16. Financial and Other Resource Needs for Bay Area Disaster Recovery and Resilience** (*focus on how Bay Area businesses, community institutions, and other organizations and individuals will identify and have access to the enormous amounts of funds, expertise, and other assistance to invest in recovery and rebuilding activities that could continue for years, as well as what mechanisms and avenues could be utilized or created for this purpose*)

- Post-disaster assistance (government and other funding/reimbursement) from:
  - Federal government, State, and Local government
  - Private sector
  - Non-profit and community organizations
  - Financial institutions (e.g., low-interest loans, mortgage forgiveness/renegotiation)
  - Other mechanisms that can provide assistance (e.g., redevelopment agencies)
  - Volunteer and public service organizations
- Meeting protection and mitigation needs to expedite recovery and build disaster resilience
  - Potential investment mechanisms
  - Recovery bonds
  - Loans and incentives to small and medium businesses
  - Funds and technical support needed for training and exercises