



Chapter 8. City of East Palo Alto

8.1 Hazard Mitigation Plan Point of Contact

Primary Point of Contact

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8.2 Jurisdiction Profile

The Planning Commission will make a recommendation to City Council to adopt the Hazard Mitigation Plan and direct the City Manager to direct staff to implement the plan.

The City of East Palo Alto is a community located in Silicon Valley at the southernmost edge of San Mateo County. The city was incorporated on July 1, 1983. The city is approximately 2.6 square miles in size and has a total population of 30,545 as of January 1, 2016, according to the Department of Finance. The city currently employs 103 people. The city is surrounded by the City of Menlo Park to the north and to the west, the City of Palo Alto to the south, and San Francisco Bay to the east.

The area that is now East Palo Alto has supported human settlement for over two millennia. Various tribes of Costanoan Native Americans, also known as the *Ohlone*, were the first known human inhabitants in the San Francisco Bay Area. The first European settlers in the area were Spanish ranchers and Gold Rush enriched land speculators. In 1849, a wharf was built at the foot of Bay Road – then just an unimproved dirt cart road – and the community of “Ravenswood” grew around it. The community was primarily agricultural in nature but there was also some shipping activity through the wharf, largely related to the bricks produced at a local factory. The area remained generally in agricultural use through the rest of the 19th century.

The development of East Palo Alto into primarily a residential suburban community began after World War II. Housing tract developers acquired larger tracts from nearby farms along with some of the colony lots and began subdividing them into much smaller, densely populated residential parcels. African American migrants first arrived in East Palo Alto around the end of World War II. Most of these Southern migrants moved in to take advantage of low cost housing and because, unlike surrounding peninsula communities, the area had few restrictive housing covenants. By the 1960s jobs and the possibility for higher education brought a second wave of African American settlers.



As the high-tech industry in Silicon Valley enjoyed an economic boom in the 1980s and 1990s, East Palo Alto was one of the most affordable places to live as property values in nearby communities skyrocketed. The city's prime location near Highway 101 and the Dumbarton Bridge, combined with affordable housing rates, attracted a very diverse population to the growing community. Today, Hispanic, African American, and Pacific Islander residents represent the largest ethnic groups in East Palo Alto, making it one of the most multicultural and multilingual communities in the San Francisco Bay Area.

As the new millennium approached, significant development occurred adjacent to both sides of Highway 101 (US 101) accelerated by a technology bubble. To the east of US 101, the City witnessed cranes rise on 146 acres to construct the Ravenswood 101 Shopping Center, which included stores like Home Depot, a Best Buy, a Circuit City, and IKEA. Immediately behind it rose the University Square housing community with 217 new single family homes built on 36 acres along with multifamily housing serving moderate and low income households. This development faced opposition from some residents, who charged that it priced locals out of one of the regions only affordable communities while providing only low-paying retail jobs and consuming disproportionate land area. Supporters pointed to an increased tax base. At the same new development to the west, including University Circle, the 460,000-square-foot office development and the 230-room luxury Four Seasons Silicon Valley Hotel, replaced Whiskey Gulch.

The City of East Palo Alto has a Mediterranean Climate with cool, wet winters and warm, dry summers. The average annual precipitation is around 16 inches per year. A General Law City with a Council Manager form of government and as a municipal corporation, the City of East Palo Alto establishes its own zoning and land use regulations.

As the recession of 2007-2009 ended, and a resurgent economy centered around technology flourished, the City began experiencing a second wave of development with the Mi Pueblo Food Center grocery store opening in the Ravenswood 101 shopping center's former Circuit City store. Mi Pueblo was the city's first full-service supermarket in 23 years. Although there are several other smaller local grocery stores in East Palo Alto, the establishment of Mi Pueblo Food Center in East Palo Alto marked a milestone in city's history, as residents no longer had to drive to other cities to buy their groceries from a full-service supermarket. Subsequently, Sobrato Organization's University Square development began in 2014 – 2016, which transformed several blighted parcels into the City's newest gateway with a 200,000 square foot Class-A office project located at University Avenue and Donohoe Street, adjacent to the US 101 northbound off ramp. Additionally, a 51-unit market rate housing development known as Montage Homes located on Pulgas Avenue near Bay Road was completed in 2016, at the same time that a new 41-unit senior housing project located on University Avenue broke ground.

8.3 Capability Assessment

An assessment of legal and regulatory capabilities is presented in Table 8-1. An assessment of fiscal capabilities is presented in Table 8-2. An assessment of administrative and technical capabilities is presented in Table 8-3. Information on National Flood Insurance Program (NFIP) compliance is presented in Table 8-4. Classifications under various community mitigation programs are presented in Table 8-5. An assessment of education and outreach capabilities is presented in Table 8-6.





TABLE 8-1. LEGAL AND REGULATORY CAPABILITY

	Local Authority	Other Jurisdiction Authority	State Mandated
Building Code	Yes	No	Yes
Comment: Title 15, adopted in November 19, 2013			
Zoning Code	Yes	No	No
Comment: Zoning Ordinance, Appendix A, adopted 2003			
Subdivisions	Yes	No	Yes
Comment:			
Stormwater Management	Yes	No	Yes
Comment: Chapter 13.12 adopted in November 19, 2013			
Post-Disaster Recovery	Yes	No	Yes
Comment: Emergency Management Plan adopted in April 2011			
Real Estate Disclosure	Yes	No	Yes
Comment: CA. State Civil Code 1102 requires full disclosure on Natural hazard Exposure of the sale/re-sale of any and all real property.			
Growth Management	Yes	No	No
Comment: Ravenswood/ 4 Corners TOD Specific Plan adopted in 2012.			
Site Plan Review	Yes	No	Yes
Comment: Chapter 26, adopted in November 19, 2013			
Environmental Protection	Yes	No	Yes
Comment: Title 17, adopted in November 19, 2013			
Flood Damage Prevention	Yes	No	Yes
Comment: Chapter 15.52, adopted in November 19, 2013			
Emergency Management	Yes	No	Yes
Comment: Chapter 2.76, adopted in November 19, 2013			
Climate Change	Yes	No	Yes
Comment: adopted 1999, updating General Plan to be adopted in November 2016			
Other	Yes	No	No
Comment: Chapter 8.12 (Environmental Health), Chapter 8.16 (Fire Code and Prevention), Chapter 8.44 (Individual Sewage Disposal Systems), Chapter 13.08 (Sanitary Sewers), Chapter 15.44 (Backflow Prevention)			
General or Comprehensive Plan	Yes	No	Yes
Is the plan equipped to provide linkage to this mitigation plan? Yes, especially flood hazard mitigation (Housing Element) and Safety Element. Safety Element considers both natural and human hazards.			
Comment: Last updated in 1999 and amended in 2011 (Housing Element updated in 2015)			
Capital Improvement Plan	Yes	No	Yes
What types of capital facilities does the plan address? Streets and Transportation Projects, Community Facilities Projects, Park and Open Space Projects, Storm Drain Projects, Water Supply Projects, Water Distribution Projects, Other Special Projects			
Comment: Capital Improvement Plan updated every 2 years			





TABLE 8-1. LEGAL AND REGULATORY CAPABILITY

	Local Authority	Other Jurisdiction Authority	State Mandated
Floodplain or Watershed Plan <i>Comment: San Francisquito Creek Joint Powers Authority, City of East Palo Alto Storm Drain Master Plan (City of East Palo Alto website)</i>	Yes	Yes	Yes
Stormwater Plan <i>Comment: Storm Drain Master Plan (City of East Palo Alto website), adopted October 23, 2012</i>	Yes	No	Yes
Habitat Conservation Plan <i>Comment: General Plan EIR to be adopted in 2016</i>	No	Yes	Yes
Economic Development Plan <i>Comment: Ravenswood 4/ Corners TOD Specific Plan, adopted in 2012.</i>	Yes	No	Yes
Shoreline Management Plan <i>Comment:</i>	No	No	Yes
Community Wildfire Protection Plan <i>Comment: Chapter 7a of the Building Code (Wildland Urban Interface) adopted in January 2011</i>	Yes	No	Yes
Forest Management Plan <i>Comment:</i>	No	No	Yes
Climate Action Plan <i>Comment: Climate Action Plan, adopted in 2014.</i>	Yes	No	No
Other <i>Comment: Ravenswood/4 Corners Transit-oriented Development Specific Plan (2012), Bicycle Transportation Plan (2011), Gateway 101 Specific Plan (1993), Water System Master Plan (2010), Amended 2010 Urban Water Management Plan (2013), Gloria Way Well Feasibility and Water Security Study (2012)</i>	Yes	Yes	No
Comprehensive Emergency Management Plan <i>Comment: Multi Agency Committee (MAC), Public Works Mutual Aid Agreement (adopted 2015), California Building Officials/ OES Mutual Aid Agreement (adopted 2009), California Conservation Corps.(adopted December 2012), updated NIMS program; Emergency Operations Plan, adopted April 2011.</i>	Yes	No	Yes
Threat & Hazard Identification & Risk Assessment <i>Comment A threat assessment was conducted when compiling the Emergency Operation Plan (EOP) which was adopted in April 2011. The outcome was published in EOP Volume 1: Threat Summary Assessment</i>	Yes	No	Yes
Post-Disaster Recovery Plan <i>Comment Emergency Operations Plan, Volume 1; Chapter 4: Recovery adopted in 2011.</i>	Yes	No	Yes
Continuity of Operations Plan <i>Comment Emergency Operations Plan, Volume 2; page 28, adopted in 2011.</i>	Yes	No	Yes
Public Health Plan <i>Comment: Section in 1999 General Plan, MOU with clinic, part of Emergency Plan, COAD of South San Mateo County</i>	Yes	No	No



TABLE 8-2. FISCAL CAPABILITY

Financial Resources	Accessible or Eligible to Use?
Community Development Block Grants	Yes
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for Specific Purposes	Yes
User Fees for Water, Sewer, Gas or Electric Service	Yes
Incur Debt through General Obligation Bonds	Yes
Incur Debt through Special Tax Bonds	Yes
Incur Debt through Private Activity Bonds	Yes
Withhold Public Expenditures in Hazard-Prone Areas	Yes
State-Sponsored Grant Programs	Yes, CAL-OES Hazard grants
Development Impact Fees for Homebuyers or Developers	Yes
Other	N/A

TABLE 8-3. ADMINISTRATIVE AND TECHNICAL CAPABILITY

Staff/Personnel Resources	Available?	Department/Agency/Position
Planners or engineers with knowledge of land development and land management practices	Yes	Community and Economic Development Department/ Planning and Housing Division/ Engineering Division
Engineers or professionals trained in building or infrastructure construction practices	Yes	Community and Economic Development Department/ Engineering Division
Planners or engineers with an understanding of natural hazards	Yes	Community and Economic Development Department/ Engineering Division
Staff with training in benefit/cost analysis	Yes	Community and Economic Development Department/ Management Analyst
Surveyors	Yes	State Licensed
Staff capable of making substantial damage estimates	Yes	Building staff are SAP certified
Personnel skilled or trained in GIS applications	Yes	Contract IT
Scientist familiar with natural hazards in local area	Yes	USGS, Cal-Conservation, UC Berkley
Emergency manager	Yes	Administrative Services Director
Grant writers	Yes	Assistant City Manager



TABLE 8-4. NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

Criteria	Response
When did the community enter the NFIP?	10/20/2011
When did the Flood Insurance Rate maps become effective?	10/16/2012
What local department is responsible for floodplain management?	Community and Economic Development/ Planning and Housing
Who is your floodplain administrator? (department/position)	Public Works Director
<ul style="list-style-type: none"> ▪ Is this a primary or auxiliary role? 	Primary
Are any certified floodplain managers on staff in your jurisdiction?	Yes
What is the date of adoption of your flood damage prevention ordinance?	2005
<ul style="list-style-type: none"> ▪ Does your floodplain management program meet or exceed minimum requirements? 	Exceed
<ul style="list-style-type: none"> ▪ If so, in what ways? 	18" minimum freeboard requirement
When was the most recent Community Assistance Visit or Community Assistance Contact?	Fall of 2015
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed?	No
Do your flood hazard maps adequately address the flood risk within your jurisdiction?	Yes
Does your floodplain management staff need any assistance or training to support its floodplain management program?	Yes
Does your jurisdiction participate in the Community Rating System (CRS)?	Yes
<ul style="list-style-type: none"> ▪ If so, is your jurisdiction seeking to improve its CRS Classification? 	Yes
How many Flood Insurance policies are in force in your jurisdiction?	941
<ul style="list-style-type: none"> ▪ What is the insurance in force? 	\$223,175,000
<ul style="list-style-type: none"> ▪ What is the premium in force? 	\$1,148,233
How many total loss claims have been filed in your jurisdiction?	33
<ul style="list-style-type: none"> ▪ How many claims were closed without payment/are still open? 	11
<ul style="list-style-type: none"> ▪ What were the total payments for losses? 	\$197,483.82

TABLE 8-5. COMMUNITY CLASSIFICATIONS

	Participating?	Classification	Date Classified
Community Rating System	Yes	8	May 1, 2016
Building Code Effectiveness Grading Schedule	Yes	3	2013
Public Protection	Yes	2	2012
Storm Ready (Flood Warning) –	Yes	7	1/27/2012



TABLE 8-5. COMMUNITY CLASSIFICATIONS

	Participating?	Classification	Date Classified
Firewise (fire protection) – The Fire Suppression Rating Schedule (FSRS) is a manual containing the criteria ISO uses in reviewing the fire prevention and fire suppression capabilities of individual communities or fire protection areas.	Yes	2	2012

TABLE 8-6. EDUCATION AND OUTREACH

Criteria	Response
Do you have a Public Information Officer or Communications Office?	Yes
Do you have personnel skilled or trained in website development?	Yes
Do you have hazard mitigation information available on your website?	Yes
<ul style="list-style-type: none"> If yes, please briefly describe. 	Cityofepa.org (Flood Preparedness Webpage, Hazard Mitigation Plan link, etc.)
Do you utilize social media for hazard mitigation education and outreach?	Yes
<ul style="list-style-type: none"> If yes, please briefly describe. 	East Palo Alto Next Door
Do you have any citizen boards or commissions that address issues related to hazard mitigation?	Yes
<ul style="list-style-type: none"> If yes, please briefly specify. 	Program for Public Information (PPI) Group
Do you have any other programs already in place that could be used to communicate hazard-related information?	Yes
<ul style="list-style-type: none"> If yes, please briefly describe. 	COAD of South San Mateo County
Do you have any established warning systems for hazard events?	Yes
<ul style="list-style-type: none"> If yes, please briefly describe. 	SMC Alert

8.4 Integration with Other Planning Initiatives

The following describe the jurisdiction’s process for integrating the hazard mitigation plan into local planning and adopted flood plain and earthquake safety requirements as per the state and national standards.

- ❖ The General Plan 2035 Update fulfills requirements for AB2140. Chapter 10: Safety and Noise, subchapter goal and policies. We have conducted public outreach and have adopted a comprehensive list of codes including Title 24. We also have a collaborative enforcement of CC&R titles 8,19, 24, and 25. We adopted flood plain and earthquake safety requirements as per the state and national standards.





8.4.1 Opportunities for Future Integration

The following plans and programs do not currently integrate the goals, risk assessment and/or recommendations of the hazard mitigation plan, but provide an opportunity for future integration:

The city will upgrade the levees and increase partnerships with COAD and the Program for Public Information group. Applying resources to abate the special flood hazard areas of the city. The city will remove any and all impediments of storm water flow in the floodplain. Building, Planning, Public Works, County of San Mateo, and San Francisquito Joint Powers Authority are working on mitigation efforts for sea level rise.

8.5 Jurisdiction-Specific Natural Hazard Event History

Table 8-7 lists all past occurrences of natural hazards within the jurisdiction.

TABLE 8-7. NATURAL HAZARD EVENTS

Type of Event	FEMA Disaster # (if applicable)	Date	Preliminary Damage Assessment
Severe Storm/ Flooding	N/A	12/23/2012	\$2,627,000
Severe Storm/ Flooding	DR-1203	2/9/1998	\$12,000,000
Severe Storm(s)	DR-1155	1/4/1997	Unknown
Severe Storm(s)	DR-1046	3/12/1995	Unknown
Severe Storm(s)	DR-1044	1/10/1995	Unknown
Earthquake	DR-845	10/18/1989	Unknown

8.6 Jurisdiction-Specific Vulnerabilities

Repetitive loss records are as follows:

- ❖ Number of FEMA-identified Repetitive-Loss Properties: 0
- ❖ Number of FEMA-identified Severe-Repetitive-Loss Properties: 0
- ❖ Number of Repetitive-Loss Properties or Severe-Repetitive-Loss Properties that have been mitigated: 0

Other noted vulnerabilities include:

- ❖ Several critical facilities in East Palo Alto are located in the special flood hazard area.
- ❖ Several neighborhoods (Westside area) have the potential to have ingress and egress cut off as the result of a hazard event, such as a flood or earthquake (e.g. bridge only access).
- ❖ Substantial number of buildings in one area of the community are unreinforced masonry.

8.7 Hazard Risk Ranking

Table 8-8 presents the ranking of the hazards of concern.



TABLE 8-8. HAZARD RISK RANKING

Rank	Hazard Type	Risk Rating Score (Probability x Impact)	Category
1	Earthquake	54	High
2	Flood	42	High
3	Severe Weather	33	Medium
4	Tsunami	6	Low
5	Dam Failure	6	Low
6	Drought	3	Low
7	Landslide	0	None
8	Wildfire	0	None

8.8 Hazard Mitigation Action Plan and Evaluation of Recommended Actions

Table 8-9 lists the actions that make up the City of East Palo Alto hazard mitigation action plan. Table 8-9 identifies the priority for each action. Table 8-10 summarizes the mitigation actions by hazard of concern and the six mitigation types.

TABLE 8-9. HAZARD MITIGATION ACTION PLAN MATRIX

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Sources of Funding	Timeline
Action #EPA-1 Partner on the new levee project from San Francisquito Joint Powers Authority						
New and Existing	Dam Failure, Flood, Tsunami	1, 4, 5, 7, 9, 10	Public Works, San Francisquito Creek Joint Powers Authority	High	JPA funds, FEMA funds, CA state funding	Short-term
Action # EPA -2 Conduct Water main upgrades and improvements						
Existing	Earthquake	2, 4, 7	Public Works (Lead) and Engineering	High	Water capital improvement surcharge (water customers)	Long-term
Action #EPA-3 Ensure Potable water access via Pad D and Gloria Way Wells						
New and Existing	Drought	1, 2, 4, 7	Engineering and Public Works (Lead)	High	Water Capital Improvement Surcharge	Short-term
Action #EPA-4 Establish New Water Storage Tanks for Commercial Projects						
New	Drought	1, 2, 6, 7	Public Works	High	Water Capital Improvement Surcharge	Long-term

Action #EPA-5 Conduct Storm Drain Improvements





TABLE 8-9. HAZARD MITIGATION ACTION PLAN MATRIX

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Sources of Funding	Timeline
Existing	Flooding and Severe Storm	1, 4, 6, 11	Public Works	High	Seeking funding source	Long-term
Action # EPA-6 Develop a Soft Story Retrofit Ordinance						
New and Existing	Earthquake	1, 2, 3, 4, 5	Building	Low	No fiscal impact	Short-term
Action #EPA-7 Develop database for Unreinforced Masonry -URM						
Existing	Earthquake	1, 2, 3, 4, 5	Building	Low	No fiscal impact	Short-term
Action #EPA-8 Develop a Concrete Tilt-up Building Seismic Retrofit Ordinance						
Existing	Earthquake	1, 2, 3, 4, 5	Building	Low	No fiscal impact	Short-term
Action #EPA-9 Participate in programs such as Firewise and StormReady.						
New and Existing	Flood, Dam Failure, Severe Storm	1, 3, 5, 7, 8, 9, 10	Planning	Low	Staff time, General Planning funds	Ongoing
Action G-1 —Where appropriate, support retrofitting, purchase, or relocation of structures in hazard-prone areas to prevent future structure damage. Give priority to properties with exposure to repetitive losses.						
Existing	All	1, 3, 4, 5, 6, 7, 11	Jurisdictions	High	FEMA Hazard Mitigation Grants	Long-term (depending on funding)
Action G-2 —Maintain good standing under the National Flood Insurance Program and continue participation in CRS by exceeding the minimum NFIP requirements.						
New and existing	Flooding	2, 3, 5, 6, 8	Planning Department	Low	General Fund	Short-term and ongoing
Action G-3 —Where feasible, implement a program to record high water marks following high-water events.						
New and existing	Flooding, Severe Weather	1, 3, 4, 5, 6	Jurisdictions	Medium	General Fund; FEMA Grant Funds (Public Assistance)	Long-term
Action G-4 —Integrate the hazard mitigation plan into other plans, programs, or resources that dictate land use or redevelopment.						
New and existing	All	1, 2, 3, 4, 5, 6, 7, 8, 10	Jurisdictions	Low	General Fund	Short-term
Action G-5 —Provide incentives for eligible non-profits and private entities, including homeowners, to adapt to risks through structural and nonstructural retrofitting.						
New and existing	All	2, 3, 4, 5, 6, 7, 8, 10, 11	Jurisdictions	Low	Operating Budgets	Ongoing
Action G-6 — Support the County-wide initiatives identified in Volume I of the hazard mitigation plan.						





TABLE 8-9. HAZARD MITIGATION ACTION PLAN MATRIX

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Sources of Funding	Timeline
New and existing	All	All	Jurisdictions	Low	General Fund	Short- and long-term
Action G-7 — Actively participate in the plan maintenance protocols outlined in Volume I of the hazard mitigation plan.						
New and Existing	All	1, 4	Jurisdictions	Low	Staff Time, General Funds	Short-term

TABLE 8-10. MITIGATION STRATEGY PRIORITY SCHEDULE

Action #	# of Objectives Met	Benefits	Costs	Do Benefits Equal or Exceed Costs?	Is Project Grant-Eligible?	Can Project Be Funded Under Existing Programs/Budgets?	Implementation Priority ^a	Grant Priority ^a
1	6	High	High	Yes	Yes	Yes	High	Medium
2	3	High	High	Yes	Yes	No	Low	Medium
3	4	High	High	Yes	Yes	No	High	High
4	4	Medium	High	No	Yes	No	Low	Low
5	4	High	High	Yes	Yes	No	Low	Medium
6	5	Medium	Low	Yes	No	Yes	High	Low
7	5	Medium	Low	Yes	No	Yes	High	Low
8	5	Medium	Low	Yes	No	Yes	High	Low
9	7	Medium	Low	Yes	Yes	No	High	Low
G-1	7	High	High	Yes	Yes	No	High	High
G-2	5	Medium	Low	Yes	No	Yes	High	Low
G-3	5	Medium	Medium	Yes	Yes	Yes	Medium	Medium
G-4	9	Medium	Low	Yes	No	No	Medium	Low
G-5	9	Low	Low	Yes	No	Yes	Low	Low
G-6	11	Low	Low	Yes	No	Yes	High	Low
G-7	2	Low	Low	Yes	No	Yes	High	Low

a. See the introduction to this volume for explanation of priorities.

TABLE 8-11. ANALYSIS OF MITIGATION ACTIONS

Hazard Type	Action Addressing Hazard, by Mitigation Type ^a					
	1. Prevention	2. Property Protection	3. Public Education and Awareness	4. Natural Resource Protection	5. Emergency Services	6. Structural Projects
Earthquake	EPA-6, EPA-7, EPA-8	EPA-6, EPA-7, EPA-8	EPA-6, EPA-7, EPA-8			EPA-6, EPA-7, EPA-8
Flood	EPA-1, EPA-9	EPA-1	EPA-9	EPA-9	EPA-9	EPA-1





TABLE 8-11. ANALYSIS OF MITIGATION ACTIONS

Hazard Type	Action Addressing Hazard, by Mitigation Type ^a					
	1. Prevention	2. Property Protection	3. Public Education and Awareness	4. Natural Resource Protection	5. Emergency Services	6. Structural Projects
Severe Storm	EPA-1, EPA-9	EPA-5	EPA-9			
Tsunami	EPA-1		EPA-9			
Drought	EPA-3, EPA-4		EPA-9			EPA-3, EPA-4
Dam Failure	EPA-1, EPA-5	EPA-1				EPA-1

a. See the introduction to this volume for explanation of mitigation types.











