

OAKLAND LOCAL HAZARD MITIGATION PLAN PROGRESS REPORT

2021-2022

Reporting Period: *July 2021-July 2022*

Background: The City of Oakland developed a hazard mitigation plan to reduce risk from hazards by identifying resources, information, and strategies for risk reduction. The federal Disaster Mitigation Act requires state and local governments to develop hazard mitigation plans as a condition for federal disaster grant assistance. To prepare the plan, the City organized resources, assessed risks from hazards, developed planning goals and objectives, reviewed mitigation alternatives, and developed an action plan to address probable impacts from natural hazards. By completing this process, the City maintained compliance with the Disaster Mitigation Act, achieving eligibility for mitigation grant funding opportunities afforded under the Robert T. Stafford Act. The plan can be viewed on-line at:

https://cao-94612.s3.amazonaws.com/documents/2021-07-01_OaklandHMP_AdoptedFinal-1.pdf

Summary Overview of the Plan's Progress: The performance period for the hazard mitigation plan became effective on **July 2021**, with the final approval of the plan by FEMA. The performance period for this plan will be 5 years, with an anticipated update to the plan to occur before July 2022. As of this reporting period, the performance period for this plan is considered to be **20%** complete. The hazard mitigation plan has targeted 21 hazard mitigation actions to be pursued during the 5-year performance period. As of the reporting period, the following overall progress can be reported:

- out of actions (%) reported ongoing action toward completion.
- out of actions (%) were reported as being complete.
- out of actions (%) reported no action taken.

Purpose: The purpose of this report is to provide an annual update on the implementation of the action plan identified in the hazard mitigation plan. The objective is to ensure that there is a continuing and responsive planning process that will keep the hazard mitigation plan dynamic and responsive to the needs and capabilities of the City of *Oakland*. This report discusses the following:

- Hazard events that have occurred within the last year.
- Changes in risk exposure within the planning area.
- Mitigation success stories.
- Review of the action plan.

Hazard Events within the Planning Area: During the reporting period, there was 1 hazard event in the planning area that had a measurable impact on people or property. A summary of these events is as follows:

- At 2030 Hours on January 14th, 2022, there was an underwater explosive volcanic eruption off the coast of Tonga causing an issuance of a Tsunami Advisory for California coast for January 15th, 2022, at 0456 Hours. The initial Tsunami Surge arrived in California between 0700 and 0730 Hours. Federal, State, and Local entities, including the City of Oakland, have issued multiple notifications for the affected areas. Tsunami Advisory was cancelled statewide at 0029 Hours on January 16th, 2022. The Tsunami from Tonga Volcanic Event generated moderate to strong currents and minor flooding in the East Bay marinas and beaches as it coincided with a High Tide. The City of Oakland did not incur any damages.

Changes in Risk Exposure in the Planning Area: *No changes in risk exposure within the planning area.*

Mitigation Success Stories: *No events to report.*

Review of the Action Plan: Table 2 reviews the action plan, reporting the status of each action. Reviewers of this report should refer to the hazard mitigation plan for more detailed descriptions of each action and the prioritization process.

Table 2. Action Plan Matrix

Action Taken? (Yes or No)	Time Line	Priority	Status ^a	Status (X, O, ✓) ^b
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Action #O-1: Safer Housing for Oakland: Soft Story Apartment Retrofit Program—Under this action, the City will invest in and seek grant funding to support the seismic structural retrofit to the over 22,000 identified soft-story structures within the city.

Yes	N/A	Medium	Currently in the close-out phase with Cal OES and FEMA. All construction was completed in March 2022.	O
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Action #O-2: Continue the Earthquake Safe Homes Program—The Earthquake-Safe Homes Program will have three primary components: (1) re-establishing a single-family seismic retrofit program previously funded through the City’s Redevelopment Agency; (2) leveraging the City’s existing community outreach network, current pipeline of homes in need of retrofit, and existing housing rehab intake process to solicit and process applications expeditiously; (3) deploying financial assistance to homeowners to complete code-compliant seismic retrofits. This action will be conducted in coordination with O-1.

Yes	N/A	Medium	Currently in the close-out phase with Cal OES and FEMA. All construction was completed in March 2022.	O
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Action Taken? (Yes or No)	Time Line	Priority	Status ^a	Status (X, O, ✓) ^b
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Action #O-3: Green Stormwater Infrastructure Program—The City will implement its Green Stormwater Infrastructure (GSI) Plan to include GSI where feasible in public capital projects such as streetscape renovations, park projects, and parking lot retrofits, among others. GSI is a term for engineered stormwater detention systems that are designed to capture specific runoff volumes of various design storms and remove stormwater pollutants. Examples include bioretention areas (rain gardens), engineered tree well filters, green roofs, flow-through planters, and permeable pavement.

Modifications: Open to modification

Yes	TBD	Medium	The Water Board released a new stormwater permit that will require the City to revise our Green Stormwater Infrastructure (GSI) Plan/Program and we're developing a Storm Drainage Master Plan that will support some GSI work. Timeline will be developed in FY 22-23.	O
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Action #O-4: Identify feasible and cost-effective stormwater infrastructure projects that have been identified in the City's capital improvement program and/or Storm Drain Master Plan, that would be good target projects for which to pursue funding under FEMA's Hazard Mitigation Assistance (HMA) grant programs.

Modifications: Open to modification

Yes	2024	Medium	This is being done through the Storm Drainage Master Plan project. The SDMP will be completed in 2024	O
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Action #O-5: Defensible Space Vegetation Program to manage wildfire hazards; preparation of a Vegetation Management Plan— This is an ongoing program to implement the defensible space vegetation program that includes the clearing or thinning of non-fire resistive vegetation within 10 feet of access and evacuation roads and routes to critical facilities, or all non-native species (such as eucalyptus and pine, but not necessarily oaks) within 10 feet of access and evacuation roads and routes to critical facilities. Clearing a 30-foot fuel reduction zone around all buildings/structures. Additional space may be

and/or topography.

Modifications: Open to modification

		High	Not current update	
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Action Taken? (Yes or No)	Time Line	Priority	Status ^a	Status (X, O, ✓) ^b
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Action #O-6: Continuity of Operations Emergency Planning—The Oakland Fire Department will continue to develop a continuity of operations plan that includes backup storage of vital records, such as plans and backup procedures to pay employees and vendors if normal finance department operations are disrupted, as well as other essential electronic files.

Modifications: Open to modification

No	TBD	High	In the planning phase	X
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Action #O-7: Implement the City’s Energy Assurance Plan that is a key part of the City’s emergency and recovery planning efforts. Components of the plan to be implemented under this strategy are:

- Energy Assessment of Key Facilities (i.e., pre-wire for rapid connection and provision of supplemental backup generators for sustained re-occupation and continuing use of City Hall, Police Administration Building, etc.)
- Community Charging Stations
- Energy Backup at Emergency Shelters and Communication Hubs: (1) Identify methods to connect portable generators of unknown sizes (the City will not know which size is available in advance) to existing building infrastructure at shelter sites such as recreation centers and at communication hubs such as libraries that are near shelter sites; (2) Create electric load management strategies that disaster recovery teams can implement to operate equipment in a clear order of priority to power their sites with portable generator of various sizes; (3) Practice the load management strategies. The City will develop the Energy Backup plan in coordination with PG&E.

Modifications: Open to modification

No		Medium	No change.	X
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Action #O-8: Assessment and retrofits of critical facilities & infrastructure—Assessment and retrofit plans of critical facilities are complete, but funding is needed to retrofit or replace critical lifeline facilities and/or their backup facilities that are shown to be vulnerable to damage in natural disasters.

Modifications: Open to modification

Yes		Medium	The City has done partial assessments and would benefit from a comprehensive assessment in the future. In an effort to address COVID-19 safety, the City did a basic assessment of air handling units in municipal facilities to determine the level of filtration in each. This effort used CARES Act funding. East Bay Community Energy conducted a preliminary facility assessment to determine readiness of Municipal facilities for solar panels and battery storage.	O
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Action Taken? (Yes or No)	Time Line	Priority	Status ^a	Status (X, O, ✓) ^b
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Action #O-9: Continue to maintain the City’s good standing and compliance under the NFIP through implementation of floodplain management programs that, at a minimum, meet the NFIP requirements:

- Enforce the flood damage prevention ordinance.
- Participate in floodplain identification and mapping updates.
- Provide public assistance/information on floodplain requirements and impacts.

Modifications: Open to modification

No	N/A	High	No updates	X
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Action #O-10: Create a comprehensive master plan for three city facilities to reliably serve as resilience hubs, or places of respite during hazard events.

Modifications: Open to modification

Y		Medium	The City of Oakland is in the process of planning two Resilience Hubs, one located in West Oakland and one in Chinatown. The City is engaged in ongoing community planning discussions. The City and community partners are seeking funds for implementation through grants and fundraising.	O
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Action #O-11: Develop an “integrated preparedness plan” that will consider the range of preparedness activities within the Integrated Preparedness Cycle, and along with the guidance provided by senior leaders, identify and set preparedness priorities, and schedule preparedness activities for the multi-year integrated preparedness plan.

Modifications: Open to modification

No		High	No current progress	X
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Action #O-12: To support implementation of and future updates to the City’s local hazard mitigation plan, Safety Element, and Environmental Justice Element, utilize the best available local data to identify racial disparities in the City of Oakland that can be used by the City to rank risk and prioritize mitigation strategies that incorporate a racial equity lens.

Modifications: Open to modification

No	One year	High	Item has not been activated. Pending an assessment being led by the Fire Department.	X
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Action Taken? (Yes or No)	Time Line	Priority	Status ^a	Status (X, O, ✓) ^b
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Action #O-13: Maritime Terminal Study on Liquefaction Potential—The Port of Oakland is located in a geographic area highly prone to liquefaction and, as a result, infrastructure damage from seismic activity. The Port has determined that in order to mitigate risk and prepare for imminent seismic events, it is necessary to conduct a liquefaction study at the marine terminals. This study will evaluate the liquefaction potential throughout the marine terminals at the Port of Oakland and its effects on Port infrastructure. The study will identify areas and facilities most at risk for liquefaction and outline a plan for mitigation, retrofit, and emergency response.

Modifications: Open to modification

No		Medium	Not done, not included in current 5-year plan	X
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Action #O-14: Middle Harbor Shoreline Park dike repair—The Middle Harbor Shoreline Park is owned by the Port of Oakland and maintained by East Bay Regional Parks District. The park is located adjacent to the southwest corner of the Port of Oakland, next to the Oakland International Container Terminal. Over the past years, the existing dike facing the Oakland Inner Harbor channel at the park has been slowly sliding into the channel and is now significantly lower than before. Initial site investigation and assumptions indicate that this could be a result of channel dredging undercutting the dike, or seismic activity from the recent earthquake in the Sonoma Valley. Before construction activities can occur to repair the seawall, a geotechnical study will need to be conducted to determine the source of slipping. The study will identify a design option that can be implemented to fix/repair the dike. The park provides an open space and Bay viewing access for the public.

Modifications: Open to modification

Y		High	Initial limited assessment performed. Continue to monitor dike elevation levels, no other work in current 5 yr plan	O
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Action #O-15: Maritime Intelligent Transportation System—The Intelligent Transportation System project is meant to improve Port of Oakland operation efficiencies, provide congestion relief, and support hazard mitigation. The project would allow Port staff to view real-time traffic through CCTV video cameras and provide advanced traffic information to travelers to the Port at specific gateways and outside the Port. The project would also establish improved transportation communication with the City of Oakland and Caltrans District 4 as well as collect data for future improvements.

Modifications: Open to modification

Yes		High	Components installed as part of Alameda County Transportation Commission work; in commissioning and testing phase	O
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Action Taken? (Yes or No)	Time Line	Priority	Status ^a	Status (X, O, ✓) ^b
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Action #O-16: Maritime Area Seismic Monitors—The Port of Oakland’s Seaport terminals are generally constructed of a pile-supported wharf structure with a riprap bulkhead retaining the soil at the back of the terminals. The Port proposes to implement additional seismic monitoring equipment at Berths 23-26 and Berths 57-58, as well as repair existing equipment at Berths 35-37. Port personnel have identified that there is likely to be difficulty in assessing potential damage to its terminals after a major earthquake, which is an essential step before a terminal can resume operations, due to the limited amount of functioning seismic monitoring equipment at the Port of Oakland’s Seaport terminals. The proposed installations will fill gaps in the current monitoring system by providing a more complete picture at Inner Harbor, Middle Harbor and Outer Harbor locations. The proposed installations will also allow Port engineers to focus on areas that are most susceptible to damage during inspection and proceed with any needed repair to resume operations in the timeliest manner.

Modifications: Open to modification

No		Medium	Not done, not included in current 5-year plan	X
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Action #O-17: Sea-Level Rise Vulnerability and Assessment Improvement Plan—The Port of Oakland’s Sea-Level Rise Vulnerability and Assessment Improvement Plan will assess the potential effects of sea-level rise on maritime facilities. The study will assess facilities Port-wide for sea-level rise vulnerability and develop an implementation plan for near-term and long-term strategies to address the potential impacts. The study will analyze the need for infrastructure such as sea walls, wharf improvements, and changes in port operations. In addition, the study will help to establish design standards.

Modifications: Open to modification

Yes		Medium	Sea Level Rise/Ground Water Intrusion Study in consultant procurement phase (Environmental Dept to confirm and provide status)	O
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Action #O-18: Tree Planning—Implement the component of the City’s Storm Drain Master Plan that looks to quantify the stormwater capture and pollutant benefit removal of tree planting and modeling where in the city stormwater runoff reduction could be achieved through increased tree canopy. Coordinate with Tree Services Division to make sure it corresponds to the Urban Forestry Master Plan.

Modifications: Open to modification

Action Taken? (Yes or No)	Time Line	Priority	Status ^a	Status (X, O, ✓) ^b
Yes	12/31/2022	High	The City of Oakland is in the process of updating its Urban Forest Master Plan. It has completed a land cover assessment, community tree inventory, inventory analysis, and socioeconomic and public health analysis. The City is currently collecting input on the Urban Forest Master Plan from community stakeholders through an online survey. The final plan will be released by 2023.	O

Action #O-19: Reestablish Full Compliance and Good Standing Under the NFIP—The City will coordinate with FEMA Region IX and DWR to address all identified issues from the open September 2017 Community Assistance Visit (CAV) to reestablish the City’s full compliance and good standing under the NFIP

Modifications: Open to modification

No	N/A	High	No status update	X
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Action #O-20: Update Sea Level Rise Road Map—Update the City’s 2017 Sea Level Rise Road Map to reflect the best and most up-to-date climate science with relevant policies and regulations, and vulnerability and risk assessments conducted to date

Modifications: Open to modification

No	N/A	High	No updates since last time. The Road Map needs to be updated.	X
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Action #O-21: Vulnerability Assessment and Adaptation Plan—In conjunction with the update or adoption of the local hazard mitigation plan, complete a citywide vulnerability assessment and comprehensive adaptation plan, addressing climate risks using forward-looking projections and including community stakeholder engagement. Implement key recommendations of these plans by 2025 to address major climate risks in frontline communities first and update these documents every 5 years with evolving climate and risk projections and adaptation best practices.

Modifications: Open to modification

Yes	8/31/2022	High	The General Plan Update consultant is preparing the draft Vulnerability Assessment and Adaptation Plan and should be ready by June 30.	O
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- a. Items addressed to determine action status:
Was any element of the action carried out during the reporting period?

If no action was completed, why?

Is the timeline for implementation for the action still appropriate?

If the action was completed, does it need to be changed or removed from the action plan?

b. Completion status legend:

✓ = Project Completed

O = Action ongoing toward completion

X = No progress at this time

New Actions to Include in the Plan: (List any new actions added to the action plan; see Chapter 21 of the hazard mitigation plan for description of the information to be provided).

Table 3. New Actions to Add to Action Plan

Lead Agency	Support Agency	Estimated Cost	Sources of Funding	Timeline	Implementation Priority	Grant Pursuit Priority
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Action #: Equity Analysis— All aspects of the plan will be revisited when the City has more data about barriers to access to services that need to be addressed

Hazards Mitigated: All

DRE	All	N/A	N/A	N/A	High	High
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Action #: Action Title—Action Description

Hazards Mitigated:

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Action #: Action Title—Action Description

Hazards Mitigated:

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Action #: Action Title—Action Description

Hazards Mitigated:

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Lead Agency	Support Agency	Estimated Cost	Sources of Funding	Timeline	Implementation Priority	Grant Pursuit Priority
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Action #: Action Title—Action Description

Hazards Mitigated: [Redacted]

[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]
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Changes That May Impact Implementation of the Plan:

There are currently no technical, regulatory or financial capabilities identified during the update period that would profoundly impact implementation of the plan and updates.

Recommendations for Changes or Enhancements: Based on the review of this report by the plan maintenance oversight committee, the following recommendations will be noted for future updates or revisions to the plan:

- _____
- _____
- _____
- _____
- _____
- _____

Public review notice: The contents of this report are considered to be public knowledge and have been prepared for total public disclosure. Copies of the report have been provided to the City of Oakland City Council and to local media outlets. The report is posted on the City of Oakland Hazard Mitigation Plan website. Any questions or comments regarding the contents of this report should be directed to:

Insert Contact Info Here