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SAFETY AND NOISE ELEMENT

State law (Government Code Sections 65300-65303.4) requires that the General Plan include polices to protect the community from both natural and human-induced disasters and policies that protect the community from harmful noise. The Alameda Safety and Noise Element identifies the policies and strategies necessary to reduce the risk of death, injuries, property damage, environmental degradation, economic and social dislocation, and excessive and harmful noise from the natural and man-made hazards and noise sources in the City of Alameda. The goals of the Safety and Noise Element are to:

- Protect the health, safety and general welfare of City of Alameda residents, workers and visitors.
- Reduce exposure to hazards.



The City of Alameda will complete work on a new Emergency Operation Center for the Alameda community in 2017.

- Reduce damage to public and private property and the environment from natural disasters and hazards.
- Minimize disruption of essential public services, facilities, and infrastructure as the result of natural disaster.
- Facilitate timely and complete recovery from a natural disaster.

- Increase public understanding and awareness of hazard and hazard mitigation.
- Facilitate participation in mitigation and resiliency preparation by Alameda residents, workers, and partner agencies.

The City of Alameda is located in a region that is susceptible to a variety of natural disasters. Close proximity to major regional earthquake faults leads to significant risks from seismic and geologic hazards. Earthquake ground shaking and soil settlement can lead to infrastructure breaks that can lead to fire hazards. Relatively flat topography and proximity to the San Francisco Bay, poses flooding hazards for Alameda. Severe storm events currently cause flooding in low lying areas in Alameda. Climate change and sea level rise will increase the severity of these hazards in the future. In addition, man-made risks from hazardous materials, airport operations and noise will continue to pose risks for Alameda residents.

The Safety and Noise Element is informed by the City of Alameda Local Hazard Mitigation Plan; City of Alameda Emergency Operations Plan; Association of Bay Area Government's Resiliency Program; Adapting to Rising Tides, Transportation Vulnerability and Risk Assessment Pilot Project (prepared by Metropolitan Transportation Commission, California Department of Transportation and Bay Conservation and Development Commission); Adapting to Rising Tides: Alameda County Shoreline Vulnerability Assessment (prepared by the Alameda County Flood Control and Water Conservation District and Bay Conservation and Development Commission); California Governor's Office of Emergency Services; United States Geological Survey Earthquake Preparedness; and the National Oceanic and Atmospheric Administration: Weather-Ready Nation.

8.1 EMERGENCY MANAGEMENT

The City of Alameda aspires towards resiliency through the continual implementation of mitigation actions that reduce the potential for loss of life, property damage, and environmental degradation from natural disasters, while accelerating economic recovery from those disasters. A resilient City is reliant on functional infrastructure systems, buildings, and programs to keep key services operational, to help damaged areas rebuild, to keep undamaged homes habitable, and to keep businesses open during recovery.

Disasters are rarely limited to jurisdictional boundaries and impacts from disasters often affect multiple agencies within a region. The Federal Disaster Mitigation Act of 2000 encourages State, regional and local agencies to work together to mitigate hazards. The Emergency Operations Management program in Alameda is intended to coordinate response to potential disasters such as hazardous materials releases, earthquakes, fire, or aircraft crash.

Objective: Minimize risks of loss of life, personal injury, property damage and environmental degradation by developing, monitoring and updating comprehensive and collaborative emergency preparedness and recovery programs.

Policies:

SN-1. Maintain emergency management and disaster preparedness as a top City priority.

- a. Maintain and update the recommendations and standards established in the City of Alameda's Emergency Management and Operations Plan as the guide for disaster planning in Alameda.
- b. Maintain training programs to ensure that City personnel are sufficiently prepared to respond to an emergency and staff the Emergency Operations Center.
- c. Identify and publicize essential emergency facilities in the City, including shelters, evacuation routes, and emergency operation staging areas, and take the necessary actions to ensure that they will remain operational following a disaster.
- d. Conduct periodic emergency response exercises to test the effectiveness of local preparedness response, recovery, and mitigation procedures.

SN-2. Maintain a prepared Emergency Operations Center to support City responses to a major emergency event.

SN-3. Continue to develop and maintain General Mutual Aid Agreements. Coordinate local emergency preparedness efforts with the Federal Emergency Management Agency (FEMA), Coast Guard, United States Maritime Administration Ready Reserve Fleet (MARAD), the San Francisco Bay Area Water Emergency Transportation Authority (WETA), the Port of Oakland, adjacent jurisdictions, the Alameda Unified School District, the various private schools in Alameda, local hospitals, senior or disabled care housing facilities, and other local and regional police, fire and public health agencies in preparation for natural and man-made disasters, and ensure that the City's disaster response communication technologies are compatible with other agency communication technologies.

SN-4. Maintain and promote community programs to train volunteers, senior and disabled support groups, food banks, and other local aid organizations to assist police, fire, and civil defense personnel during and after a major earthquake, fire, or flood.

- a. Maintain community-based emergency preparedness training programs targeted to neighborhoods and business groups including outreach and coordination with Voluntary Organizations Active in Disasters (VOAD) and other community based programs.
- b. Prepare and/or make available public education and awareness materials in multiple languages on all aspects of emergency preparedness, including the type and extent of hazards in the community, measures to reduce the likelihood of damage and injury, provisions for emergency supplies, steps to take immediately after a disaster, and the locations of shelters and medical facilities.

SN-5. Ensure that the City prioritize public safety through the implementation of a Vision Zero policy to reduce annual pedestrian and bicyclist fatalities and serious injuries resulting from collisions with faster moving vehicles and unsafe street design.

8.2 SEISMIC AND GEOLOGIC HAZARDS

Earthquakes are the single-most significant short-term geologic hazard facing the residents and businesses in Alameda. Earthquakes are also the hazard that are most likely to cause extensive damage. In addition to the initial shaking, secondary seismic hazards associated with earthquakes include liquefaction, lateral spreading, and cracking of the ground surface, sand boils, slope failure, and seiches. Figure 8-1 illustrates the proximity of Alameda to the Hayward and San Andreas Faults. The likelihood of occurrence of these secondary effects due to ground shaking in Alameda is high due to underlying soil conditions in Alameda, such as artificial fill, bay mud, and expansive soils. Figure 8-2 illustrates Alameda’s susceptibility to severe liquefaction in the event of ground shaking.

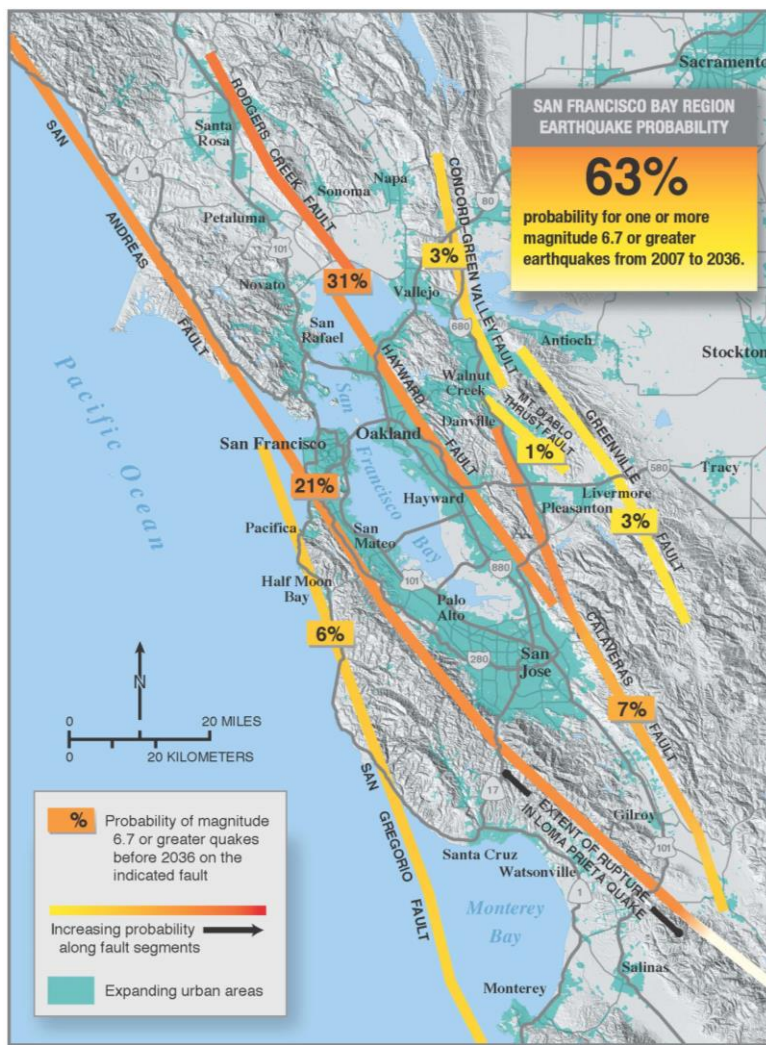


Figure 8-1 Earthquake Probabilities Source: 2007 Working Group of California Earthquake Probabilities, 2008.

Alameda’s relatively old housing stock and unique historic commercial buildings were generally constructed without the benefit of modern Building Code requirements to strengthen buildings against earthquake shaking.

The 1989 Loma Prieta earthquake caused damage to private and public buildings, water mains, sewer lines, streets, and bulkheads. Liquefaction (mud boils) occurred at Alameda Point and Harbor Bay Business Park. South Shore experienced buckled streets and sidewalks, and subsidence that made the sanitary sewer pipes no longer flow downhill, requiring the City to build a new sanitary sewer pump station. According to the USGS, the chance of an earthquake of M6.7 or greater in the Bay Area in the next 30 years is 72 percent. The chance of an M6.7 or greater earthquake on our closest fault, the Hayward Fault, in the next 30 years is 28 percent. Combining

all likely scenarios, Alameda has a 10 percent chance of experiencing “Very Strong” to “Violent” (MMI 8 to MMI 9) shaking in the next 50 years. This probability can also be expressed as a 0.2 percent chance per year, or a 500-year event, which could happen any time.

Climate change is expected to worsen earthquake hazards. Rising sea levels will cause rising groundwater levels. Soils that are more saturated with groundwater are more likely to liquefy and subside. Some preliminary evidence suggests that changes in groundwater levels in the vicinity of fault lines can promote more frequent small earthquakes.

Objective: Minimize risks of loss of life, personal injury, property damage and environmental degradation posed by earthquakes and other geologic hazards.

Policies:

SN-6. Amend and update the Alameda local California Building Code, as necessary, to incorporate new standards for construction pertaining to development on areas of fill or underlain by Bay Mud or Merritt Sand and the design of new buildings to resist the lateral effects and other potential forces of a large earthquake on any of the nearby faults.



SN-7. Work with Caltrans, the Metropolitan Transportation Commission, the Alameda County Transportation Commission and other regional, state and federal partners to fund earthquake strengthening protection for critical public regional transportation facilities, such as the Posey and Webster Tubes, the Miller Sweeney Bridge and the High Street Bridge.

SN-8. Work with Caltrans, Alameda County, and other regional agencies to retrofit and improve at least one estuary crossing to meet a life-line standard to ensure access to the larger region

for emergency access, equipment supplies, and disaster response and recovery in the event of a major seismic event.

SN-9. Continue to strengthen and rehabilitate City Buildings and other city infrastructure, including but not limited to wastewater systems and pump stations, stormwater systems and pump stations and electric systems and facilities, to ensure that the City can respond effectively to a seismic event.

SN-10. Require owners of vulnerable structures, to the extent feasible, to retrofit existing structures to withstand earthquake ground shaking, and require retrofitting when such structures are substantially rehabilitated or remodeled.

- a. Continue to implement the City's Soft Story Program including mandatory requirements for substantially improving the seismic performance of multi-family wood frame residential buildings with "soft stories."
- b. Continue to implement the City's Wood Framed Building Program including voluntary requirements for substantially improving the seismic performance of one- and two-story wood frame residential buildings with vulnerable "cripple walls."
- c. Develop incentives and assistance to help property owners make their homes and businesses more earthquake-safe. Pursue a variety of funding sources, such as grants, low-interest loans, and tax credits, to assist residents and businesses with seismic upgrades.
- d. Require owners of shoreline properties, to the extent feasible, to inspect, maintain, and repair the perimeter slopes to withstand earthquake ground shaking, consolidation of underlying Bay Mud, and wave erosion.
- e. Establish incentives and exemptions from City zoning code requirements, such as off-street parking and/or on-site common open space, to facilitate private rehabilitation and strengthening of soft story multi-family buildings.

8.3 FLOODING AND SEA LEVEL RISE

Due to its relatively flat topography and proximity to the San Francisco Bay, Alameda is uniquely sensitive to flooding caused by high tides, storm events, and climate change induced sea level rise. The City of Alameda normally experiences tides that range from -0.2' Mean Lower Low Water (MLLW) to +6.4' Mean Higher High Water (MHHW), based on the NAVD88 datum. (The NAVD88 datum or zero elevation is approximately the same as the elevations used in local tide tables.) The highest tide of the year, or "king tide," normally occurs during the winter months of November thru February, and is usually about 7.4'. Every year, there is a 1 percent chance the king tide will exceed 9.4'. The ten highest king tides recorded by NOAA in Alameda for the last 75 years measured 8.6' to 9.5' elevation.

Winter months are also when the City is likely to experience storms. During an extreme storm event, the level of the sea can temporarily rise several feet above the level predicted by tide tables. During the El Niño event of 1997-98, up to 2 feet of standing water occurred on Main Street, due to higher sea levels during high tide and heavy rainwater runoff. In 1981, storms eroded Crown Beach to the edge of Shoreline Drive. In 2006 storm waves damaged the Harbor Bay Ferry Terminal, and washed away portions of the adjoining Bay Trail.

Storm related hazards will occur more frequently and more extensively in the future due to climate change, which contributes to both sea level rise and more intense storms. A home located in a currently predicted 100-year flood level would have a 1 percent annual likelihood of being flooded in any one year. As the sea levels rise, the normal high tide will rise, so that smaller and smaller high tides and storms will have the same flooding capabilities. By mid-century, Alameda is likely to experience high tides of 9.4' once every 5 years (20 percent chance per year). By the end of the century, the new normal high tide will be a MHHW of 9.4', with yearly king tides of 10.4', and an annual 1 percent chance of seeing a 12.8' tide.

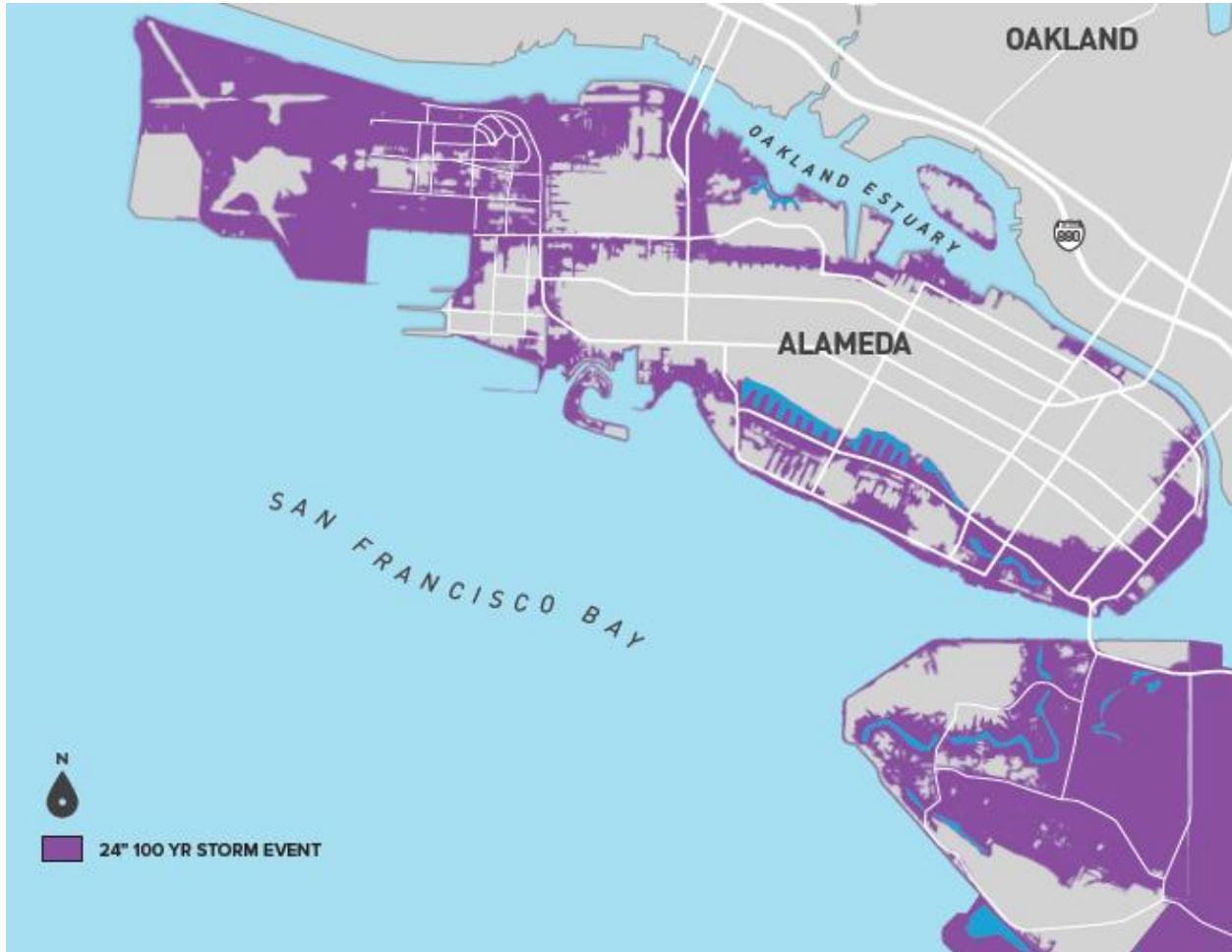


Figure 8-3: Flood Hazards. An illustration showing areas of Alameda that could be subject to temporary flooding with 24-inch sea level rise during a 100-year storm event.

Source: Bay Conservation and Development Commission, May, 2015

Global warming and sea level rise will have severe long-term effects on Alameda. The Bay Conservation and Development Commission (BCDC) and Alameda County Flood Control Water Conservation District predict a likely 12-inch increase in sea level on the Alameda County coastline by 2050, and a likely 24-inch increase in sea level in the same area by 2100 (*Adapting to Rising Tides: Alameda County Shoreline Vulnerability Assessment*, May, 2015). The study identified a 66-inch inundation level when combining the 24-inch sea level rise with a 100-year storm event (see Figure 8-3). In addition to residential and commercial properties, the Webster and Posey Tubes, Ron Cowan Parkway and the Alameda Gateway Terminal Ferry and other major public improvements are vulnerable to inundation.

Objective: Minimize risks of loss of life, personal injury, property damage and environmental degradation posed by sea level rise, flooding and storm water runoff.

Policies:

SN-11. Continue the City's participation in the National Flood Insurance Program.

SN-12. Continue to review and publish for public discussion the latest and most up-to-date flood hazard and sea level rise forecasts from regional, state and federal agencies.

SN-13. Advocate for a permanent seat for City of Alameda representation and active participation in regional discussions on sea level rise mitigation, infrastructure improvements and adaptation strategies.

SN-14. Identify public transportation, open space, and stormwater and wastewater facilities, shoreline assets, and other public assets vulnerable to sea level rise and flooding hazards, and begin planning for adaptation and protection.

- a. Implement a program for Resilient Shoreline Facilities, including performing appropriate seismic, storm, flooding and other safety analyses based on current and future use for all City-owned shoreline facilities, including dikes, shore protection (rip rap), lagoon sea walls, storm water outfalls, marinas and protective marshlands.

SN-15. Develop sea level rise adaptive strategies for different areas of the City for public discussion and evaluation, including but not limited to: avoidance/planned retreat, enhanced levees, setback levees to accommodate habitat transition zones, buffer zones, beaches, expanded tidal prisms for enhanced natural scouring of channel sediments, raising and flood-proofing structures, and/or provisions for additional floodwater pumping stations, and inland detention basins to reduce peak discharges.

- a. Develop for public discussion and evaluation potential financing strategies and partnership opportunities with regional and state agencies such as the Oakland International Airport, and other agencies to fund and build selected adaptive strategies.

SN-16. Protect and upgrade public infrastructure, including but not limited to streets, wastewater systems and pump stations, stormwater systems and pump stations, and electric systems and

facilities, to ensure capacity and resilience during storm events, high tides, and sea level rise, and to decrease the chance of flooding of nearby streets, utilities, and private property.

SN-17. Reduce the risk of tsunami inundation through public tsunami education, with special emphasis in low-lying shoreline properties, including the maritime communities and marinas.

SN-18. Design street rights-of-way, parks, other public spaces, street trees and landscaping to be resilient to temporary flooding.

SN-19. Require new development adjacent to the shoreline, lagoons and low elevations to plan for 50 years of sea level rise. Ensure that the design of future developments incorporate flood protection measures to protect improvements from a 100-year storm event and anticipated sea level rise.

- a. Require new development to provide adequate setbacks along waterfront areas for the future expansion of seawalls and levees to adapt to sea level rise.

SN-20. Require the creation and maintenance of easements along drainage ways necessary for adequate drainage of normal or increased surface runoff due to storms.

SN-21. Require and enforce stringent groundwater management programs to prevent subsidence.

SN-22. Require the use of “Green Infrastructure”, landscaping, pervious surfaces, green roofs, and on-site stormwater retention facilities to reduce surface runoff and storm drain flooding during storm events.

8.4 FIRE HAZARDS AND EMERGENCY RESPONSE

Major fires resulting from the rupture of local gas or electric lines during an earthquake could be severely compounded by water main failures and substandard fire protection systems in older buildings.

Objective: Minimize risks of loss of life, personal injury, property damage and environmental degradation posed by fire hazards.

Policies:

SN-23. Maintain the City's fire prevention, disaster preparedness, and fire-fighting and emergency medical service capabilities.

SN-24. Maintain a response time of 5 minutes, 20 seconds, 90 percent of the time, for the first fire unit to be on-scene of a fire.

SN-25. Work collaboratively with other jurisdictions and agencies to reduce fire hazards in Alameda, with an emphasis on effective vegetation management and mutual aid agreements.

SN-26. Require new development to comply with the City's current Fire, Seismic, and Sprinkler Codes.

SN-27. Require new development to minimize the risks of fire and include adequate provisions for vegetation management, emergency access and appropriate firefighting equipment.

SN-28. Require new development to underground utilities to minimize disruption by fire or other natural disasters.

8.5 HAZARDOUS MATERIALS AND WASTE

The careful management of hazardous materials and the reduction in generation and safe disposal of hazardous waste are critical to public health and safety. Hazardous materials are stored and transported throughout Alameda. Hazardous materials used in industrial and commercial areas and in households include: flammable and combustible liquids, solvents, paint, plating or photographic solutions, acids, and pesticides. Waste oil, gases, and other hazardous liquids associated with vehicle and heavy machinery maintenance are also present.

Objective: Minimize risks of loss of life, personal injury, serious illness, property damage and environmental degradation posed by the use, transport, treatment, and disposal of hazardous materials and hazardous waste.

Policies:

SN-29. Continue to identify and assess the risks associated with various hazardous materials transported in Alameda.

SN-30. Increase public awareness of hazardous material use and storage in the City, the relative degree of potential health hazards, and the appropriate channels for reporting odor problems and other nuisances.

- a. Promote public education about the safe disposal of household hazardous waste, such as motor oil and batteries, including the locations of designated household hazardous waste disposal sites.

SN-31. Work with county, regional, state and federal agencies to implement programs for hazardous waste reduction, hazardous material facility siting, hazardous waste handling and disposal, public education and regulatory compliance.

- a. Continue to remove and monitor methane gas produced as a waste product of materials decomposing in the former landfill on Doolittle Drive.

SN-32. Work with county, regional, state, and federal agencies and private property owners to ensure that the necessary steps are taken to clean up residual hazardous waste on any contaminated sites.

- a. Require that all new construction, including construction on former industrial sites, has been cleared for residential, commercial or industrial uses from the appropriate federal, state and local agencies and acts, including the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Program, the Resource Conservation and Recovery Act (RCRA), the California Department of Toxic Substances Control (DTSC), the Regional Water Quality Control Board (RWQCB) and the Alameda County Department of Environmental Health (ACDEH), which is the Certified Unified Program Agency (CUPA) responsible for implementing state environmental regulations related to hazardous waste and hazardous materials.

SN-33. Continue to support the various resource recovery initiatives and other measures specified in the Alameda County Countywide Integrated Waste Management Plan.

SN-34. Ensure that the City's Emergency Preparedness programs include provisions for hazardous materials incidents, as well as measures to quickly alert the community and ensure the safety of residents and employees following an incident.

- a. Improve the training and capability of the Fire Department to handle accidental releases of hazardous materials. Provide ongoing training for hazardous materials enforcement and response personnel. Apply the Emergency Operations Plan, if necessary, in response to a hazardous materials release disaster.

SN-35. Require adequate and safe separation between areas and uses with hazardous materials and sensitive uses such as schools, residences and public community facilities.

SN-36. Require that all facilities that handle and/or store hazardous materials are designed to minimize the possibility of environmental contamination and adverse off-site impacts and that they are in compliance with state and federal standards and requirements designed to protect public health and the environment.

SN-37. Encourage residential, commercial and industrial property owners to test their properties for elevated levels of radon gas (more than 4 pico curies per liter).

8.6 NOISE AND AIRPORT ENVIRONS

Located within a major urban metropolitan area, the major noise sources in Alameda are: aircraft noise, automobile and truck noise, and noise associated with certain commercial and industrial land uses, such as the Port of Oakland seaport and Coast Guard Island. Research shows excessive roadway, aircraft and/or wind turbine noise negatively impacts the memory, learning acquisition, test scores and physical well-being of children. Every effort should be made to minimize these risks in the placement of children with exposure to these noise sources. Aircraft operations at the Oakland International and San Francisco International Airports are the most significant sources of noise impacts in Alameda neighborhoods. Some Alameda residents currently experience single event noise in excess of 80 dBA on a nightly basis.

Objective: Protect Alameda residents from the harmful effects of exposure to excessive noise from aircraft, buses, boats, trucks and automobiles, and adjacent land uses.

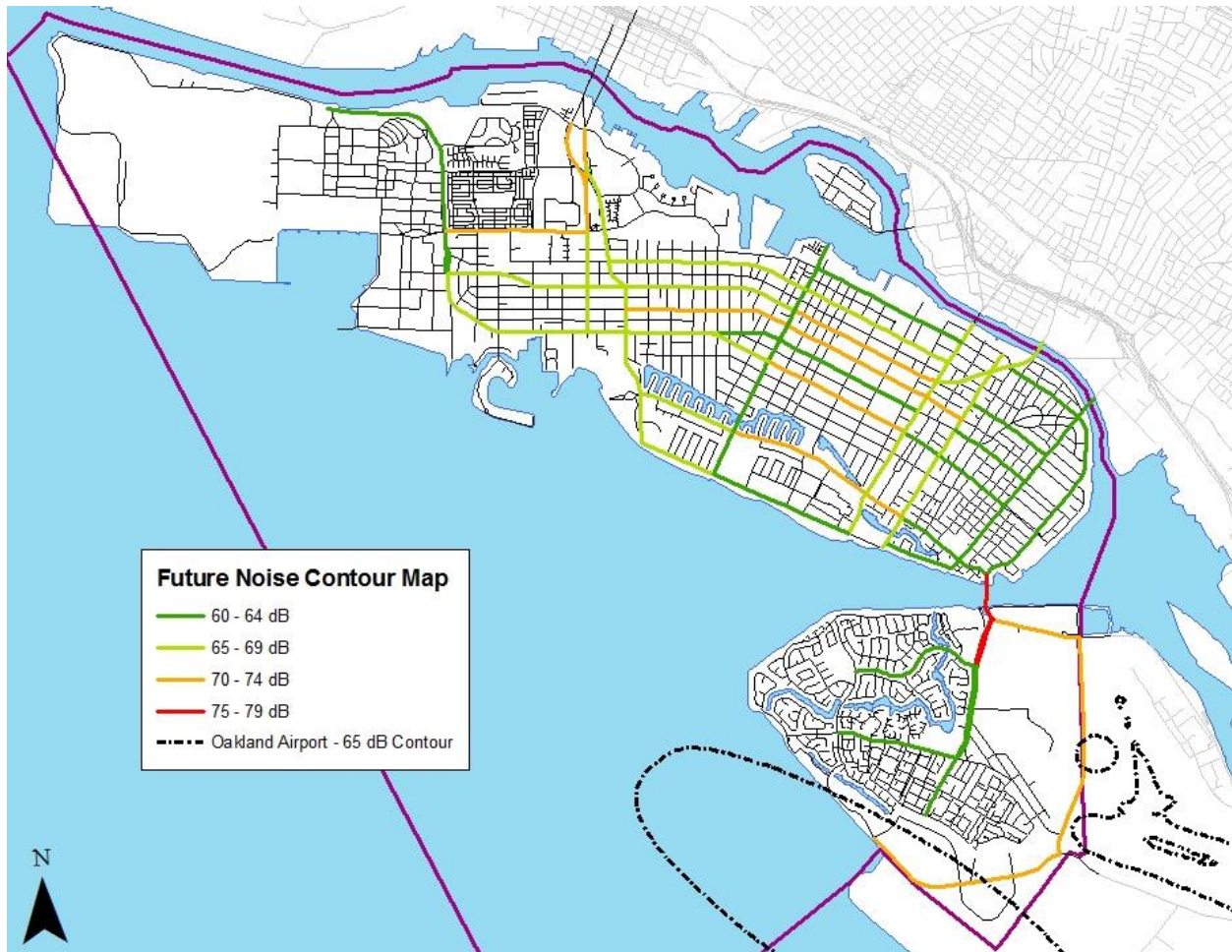


Figure 8-4: Future Noise Contour Map. The major sources of noise projected to occur in Alameda by 2035 will be from the Oakland International Airport and local streets with faster moving vehicles.

Policies:

SN-38. Support state and federal legislation to reduce transportation noise from cars, trucks, and aircraft.

SN-39. Through the City's federal lobbying agenda, support and advocate for operational practices, changes to aircraft, new technologies, and physical improvements that would reduce the number of properties in Alameda that are impacted by aircraft noise.

SN-40. Oppose any expansion of operations at Oakland International Airport that would exceed the limits established by the existing Settlement Agreements.

SN-41. Work with Oakland International Airport to reduce the incidence of single event noise exposure above those currently experienced.

SN-42. To reduce existing and future potential harmful aircraft noise impacts in Alameda neighborhoods:

- a. Actively participate in forums and discussions regarding operations and expansion plans for Oakland International Airport, including various working groups composed of individuals representing the City of Alameda, the City of San Leandro, the Port of Oakland, the Federal Aviation Administration (FAA), and the air transport industry to monitor the airport's noise control program and to make recommendations for the benefit of City of Alameda residents. These groups include the South Field & North Field Research Groups, Oakland Airport-Community Noise Management Forum and Oakland International Airport Aviation Stakeholder Advisory Committee.
- b. Seek local representation on all task forces, commissions and advisory boards established to guide airport policies and programs.
- c. Seek adherence by airport operators to operational, development and management policies that will minimize noise nuisance and safety concerns for Alameda.
- d. Work with Oakland International Airport and the FAA to limit night use of North Field to Stage 3 and Stage 4 aircraft, and pursue mitigation of aircraft noise impacts to the fullest extent possible.
- e. Ensure that any changes to aircraft operations that would potentially result in increased noise levels in Alameda incorporate comprehensive noise mitigation measures, even when the impacts will be of limited duration. To the greatest extent feasible, any changes in airport activity should avoid impacts to noise sensitive uses such as residential areas and schools.
- f. To the extent permitted by the 1976 Settlement Agreement, the 2001 Settlement Agreement, the 2002 Settlement Agreement, the 2003 Addendum to the Settlement Agreement and the Written Compliance Plan, advocate for noise abatement and mitigation programs that are based not only on the airport's noise contour maps, but that consider other factors such as the frequency of overflights, single-event noise levels, the altitude of aircraft, the hours of operation, low frequency noise, and sensitive receptors. Monitor implementation and compliance with the Settlement Agreements of 1976, 2001 and 2002 and the Written Compliance Plan.
- g. Obtain assurance that the future noise exposure for Alameda is known and that aircraft operations will be controlled to ensure that projected noise levels are not exceeded. Validation of the 65 dB CNEL contour is to be carried out by means of a permanent full-time noise monitoring system to ensure compliance with the California Airport Noise standards and the Alameda County Airport Land Use Commission (ALUC) Plan.

SN-43. Advocate for the following operational measures to be incorporated into any plans for the expansion of the Oakland International Airport:

- a. Use of Stage 3 and Stage 4 (least noisy) aircraft only, on all runways directly overflying Alameda residential areas.
- b. Enforced flight path alterations for noise abatement, for all runways, with remote monitoring sites maintained in locations mutually acceptable to the Port and the City.
- c. Prohibition of touch-and-go operations by jet aircraft.
- d. Prohibition of noisy engine ground run-ups at night outside of the Ground Run-Up Enclosure.
- e. Prohibition of intersection departures on Runway 28.

SN-44. Support the Port of Oakland in continuing to maintain a permanent full-time noise monitoring system that will (a) measure noise continuously, (b) separate OAK noise events from other noise source events, particularly overflights from other airports, (c) measure and augment CNEL values, (d) provide information on excessively noisy aircraft operations, (e) monitor effectiveness of noise abatement programs, and (f) meet the performance specifications of the California Noise Standards.

SN-45. Regulate land uses within designated airport safety zones, height referral areas, and noise compatibility zones to minimize the possibility of future noise conflicts and accident hazards.

SN-46. Maintain a high degree of readiness to respond to aircraft crashes through participation in preparedness drills and mutual aid activities with the City and Port of Oakland to ensure quick and effective response to emergencies.

SN-47. Enforce compliance with noise emissions standards for all types of automotive vehicles established by the California Vehicle Code and by federal regulations.

SN-48. With the cooperation of the U.S. Coast Guard, the City of Oakland, and the Port of Oakland, enforce California noise emission standards for engine-driven maritime vessels.

SN-49. Encourage BART and AC Transit to develop and apply noise-reduction technologies that reduce noise impacts associated with BART trains and buses.

SN-50. Where feasible and appropriate, develop and implement noise reduction measures when undertaking improvements, extensions or design changes to Alameda streets.

SN-51. Maintain day and nighttime truck routes that minimize the number of residents exposed to truck noise.

- SN-52. Require new or replacement residential development within 500 feet north of the 65 dB CNEL Settlement Agreement line on Bay Farm Island, to include noise insulation that meets the standards established in the ALUC Plan for assumed exterior 65 dB CNEL.
- SN-53. Require compliance with the California Building Code requirements to ensure appropriate interior noise levels in new or replacement residential construction, hotels, motels, and schools. In new dwellings subject to an airport noise easement, the maximum interior noise level is not to exceed 45 dB CNEL. If this requirement is met by inoperable or closed windows, a mechanical ventilation system meeting California Building Code requirements must be provided. Require acoustical analyses as allowed by the California Building Code.
- SN-54. Ensure that purchasers of property within or adjacent to the following areas are aware of existing and future potential noise conditions and the limitations of the City's ability to abate existing or future noise conditions: the Oakland International Airport Influence Areas, as defined by the ALUC, commercial districts, truck routes, major arterials, Alameda United School District facilities, City recreation facilities, and business parks. Require the full disclosure of the existing and potential future noise levels within deeds and lease agreements as a condition of project approval, whenever possible.
- SN-55. To the extent feasible, through the development entitlement process, require local businesses to reduce noise impacts on the community by avoiding or replacing excessively noisy equipment and machinery, applying noise-reduction technology, and following operating procedures that limit the potential for conflicts.
- SN-56. Require noise reduction strategies in all construction projects. Require a vibration impact assessment for proposed projects in which heavy-duty construction equipment would be used (e.g. pile driving, bulldozing) within 200 feet of an existing structure or sensitive receptor. If applicable, the City shall require all feasible mitigation measures to be implemented to ensure that no damage to structures will occur and disturbance to sensitive receptors would be minimized.
- SN-57. In making a determination of impact under the California Environmental Quality Act (CEQA), consider the following impacts to be "significant" if the proposed project causes: an increase in the Ldn noise exposure of 4 or more dBA if the resulting noise level would exceed that described as normally acceptable for the affected land use, as indicated in Table 8-1, or any increase in Ldn of 6 dBA or more.
- SN-58. Continue to enforce the Community Noise Ordinance by promptly responding to local noise complaints.

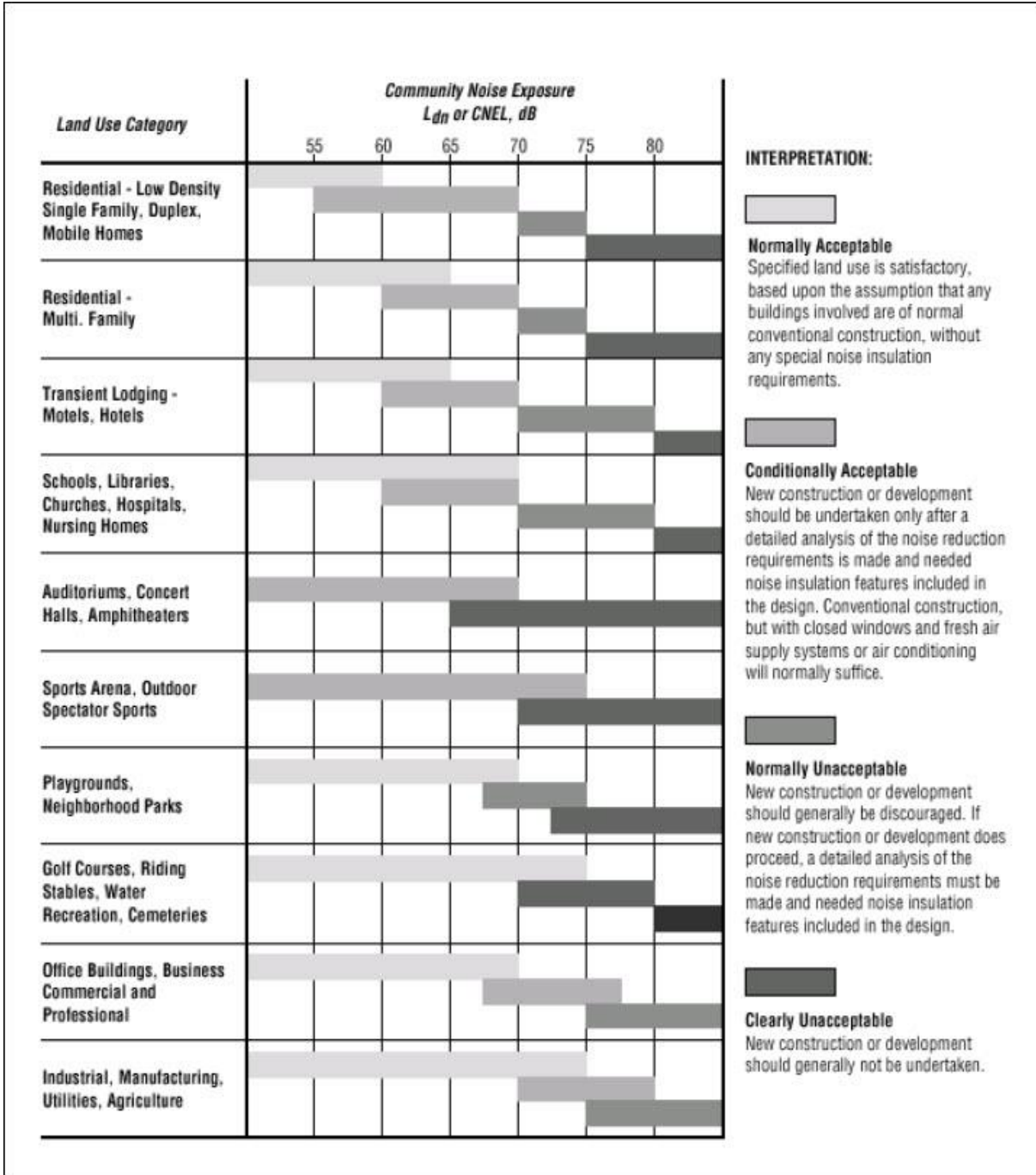


Table 8-1: California Land Use Compatibility Guidelines.
Source: Governor's Office of Planning and Research, General Plan Guidelines, November 2003.