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ADOPTED NOVEMBER 30, 2021

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FORWARD

The preparation of Alameda General Plan 2040 began in 2018 and extended over a three-year period during which time residents, businesses, community groups, and decision-makers reviewed, revised and refined plan goals, policy statements and priorities, and associated recommended actions.

The Alameda Planning Board held public forums to review and discuss the draft General Plan, and over 1,500 individuals provided written comments and suggestions for improvements to the draft Plan through the General Plan update website. *General Plan 2040 also benefited from recommendations and suggestions from:*

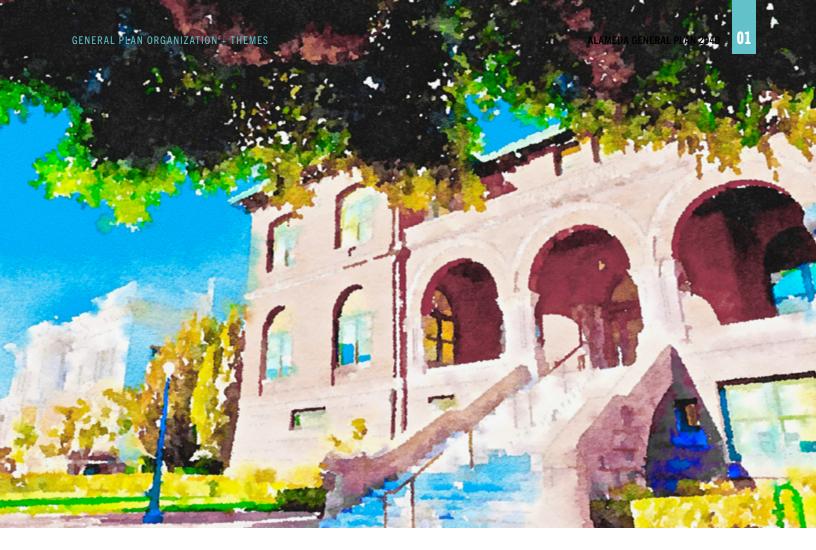
- Commission on People with Disabilities
- Historical Advisory Board
- Recreation and Parks Commission
- Social Service Human Relations Board
- Transportation Commission
- Alameda Architectural Preservation Society
- Alameda Chamber of Commerce
- Alameda League of Women Voters
- Alameda Point Harbor Seal Monitors
- Alameda Renters Coalition
- Bike Walk Alameda
- Community Action for a Sustainable Alameda (CASA)
- Downtown Alameda Business Association
- Friends of the Alameda Nature Reserve

- Golden Gate Audubon Society
- I Heart Oakland Alameda Estuary Garbage Cleanups
- Mike's Paddle
- O Kalani Outrigger Canoe Center
- Renewed Hope Housing Advocates
- ReScape
- Rotary Club of Alameda
- Sierra Club
- San Francisco Baykeeper
- Stacked Adventures
- The Alameda Collaborative for Children, Youth and their Families
- The Alameda Point Collaborative
- West Alameda Business Association

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OL GENERAL PLAN ORGANIZATION + THEMES

California Government Code section 65300.5 requires that the City of Alameda prepare and maintain a General Plan with an "integrated, internally consistent and compatible statement of policies" for the City of Alameda.



1.1 INTRODUCTION

Alameda General Plan 2040 (General Plan or Plan) complies with the requirements of California Government Code section 65300, which mandates that each California city and county adopt a comprehensive, long-range, internally consistent plan for the future development and conservation of the community.

This General Plan is a coordinated statement of community goals, policies and actions to guide and manage change to the physical, environmental, economic, and social conditions in the City of Alameda, California. The General Plan guides decision making for the conservation, protection, and improvement of the Alameda community and its natural resources to address long standing and rapidly developing challenges over the next 20 years, including but not limited to climate change, equity and inclusion, transportation and mobility, public safety and disaster preparation.

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THE GENERAL PLAN IS:

- Forward-Thinking: The General Plan considers the past and present conditions and trends and looks forward to addressing how growth and change should be managed, how unique and valuable characteristics of the community should be protected, improved or enhanced, and where and how new community needs should be addressed. The Plan strives to anticipate changes in technology, climate and economics when addressing how or where the City should take action to address existing or future challenges. The Plan is implemented by a number of shorter term, issue-specific plans, such as the Climate Action and Resiliency Plan (CARP), the Transportation Choices Plan, the Hazards Mitigation Plan, the Emergency Operation Plan, and the Alameda Municipal Code.
- **Comprehensive and Inclusive:** The General Plan considers all major components of the community's physical, economic, social, and environmental development, as well as the needs of the entire community, neighborhoods and business districts.
- **General:** Because it is forward-thinking and comprehensive, the General Plan is also general. It is specific enough to effectively guide decision-making, but general enough to allow for unforeseen issues and challenges and year-to-year community decision-making and priority-setting.
- Implementable: The General Plan guides decision-making and supports regulations and programs designed to implement community policy goals. The Alameda Municipal Code implements General Plan policy and regulates the use of land and actions necessary to protect the public health, safety, and general welfare of the community. When evaluating proposed changes to land use, proposed new regulations, and when making funding and budget decisions, the City Council and Planning Board will ensure conformity with General Plan goals and policies.
- **Evolving:** The General Plan may be amended as necessary. Community needs and priorities shift over time in response to changing community, regional, and global conditions. The Planning Board and City Council annually review the status of the General Plan to ensure that it reflects current community goals and State requirements. Requests for amendments may be submitted by individuals or may be initiated by the City itself. Pursuant to State and local law, any proposed amendment to the General Plan must be considered at a noticed public hearing before the Planning Board, which makes a recommendation on the amendment to the City Council. Upon receiving the Planning Board's recommendation, the City Council will hold a public hearing to consider the amendment and make a decision on the proposed amendment.



GRAPHIC GUIDELINES FOR THE GENERAL PLAN

Alameda General Plan 2040 is organized by Chapters or "Elements." Each Element addresses different subject matter and identifies the community's goals in respect to that subject matter while setting forth a series of goals, policies, and in some cases, actions to achieve Element goals. Policies in each Element are identified by a policy number and two letters, which identify the Element and the policy (such as "HS-1," which means Health and Safety Element Policy Number 1). Actions are identified by adding a period to the policy number followed by the action letter (such as HS-1.a). Using a consistent numbering system allows for easy reference and helps ensure that the General Plan does not include conflicting policies, which could hamper consistent decision-making and hinder progress toward achieving community goals. Throughout the General Plan additional information is located under the boxes entitled "spotlights." The information provided in the spotlights is intended to help explain the context, rationale, or vocabulary related to particular policies or programs recommended by the Plan. The spotlights are not considered part of the General Plan and may be updated without requiring a General Plan amendment. Refer to Page 9 for a full list of Spotlights in each Element.

Using excerpts from the General Plan, here is a guide to the graphics that signal the important concepts included in the General Plan: Goals, Policies, Actions and Spotlights.

GOALS: ELEMENT INTRO





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THE ALAMEDA GENERAL PLAN IS ORGANIZED AS FOLLOWS:

01

ORGANIZATION + THEMES OF THE GENERAL PLAN

Organization and Themes of the General Plan introduces the General Plan objectives and purposes, and the main themes that run through all Elements of the Plan.

02

LAND USE + CITY DESIGN ELEMENT

The Land Use and City Design Element addresses the use, preservation and development of land and facilities in Alameda consistent with local and regional goals to sustain a high quality of life in Alameda and the region for future generations.

03

CONSERVATION + CLIMATE ACTION ELEMENT

The Conservation and Climate Action Element addresses global and local climate change and the conservation of Alameda's unique natural environment.

04

MOBILITY ELEMENT

The Mobility Element addresses mobility and transportation needs essential to a high quality of life and an economically vital community.

05

OPEN SPACE + PARKS ELEMENT

The Open Space and Parks Element addresses the management, improvement, and expansion of public open space and park lands.

06

HEALTH + SAFETY ELEMENT

The Health and Safety Element addresses the needs to reduce the risk of death, injuries, property damage, and environmental degradation, economic and social dislocation from natural and man-made hazards and protect the population from harmful materials, noise, air quality, flooding and other environmental hazards.

07

HOUSING ELEMENT

The Housing Element addresses the maintenance, improvement, and expansion of housing opportunities in Alameda consistent with local and regional housing needs. The Housing Element is currently being updated and will be added in 2022. To review the 2014 Housing Element go to www.alameda2040.org or www.alamedaca. gov/Departments/Planning-Building-and-Transportation/ Planning-Division/General-Plan.

FEATURED SPOTLIGHTS:

ORGANIZATION + THEMES	MOBILITY
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Ocean Protection Council's Recommended Planning Scenario. 70	Measuring Noise
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	Community Noise Equivalent Level (CNEL)



ALAMEDA MILESTONES

Gaspar de Portolá enters San Francisco Bay 1769	
Settlement by people of European de its original name, "the Encinal," from	
Rancho San Antonio is granted by the King of Spain to Don Luis Maria Peralta. The Peraltas commenced to sell off most of their land grant, including the lands of Alameda.	
1851 William Worthington Chipman and Gi Aughinbaugh purchased the Encinal.	
The name "Alameda," meaning "grove of poplar trees," was established as a poetic gesture by popular vote.	
3 separate settlements, the Town of and adjacent lands, and Woodstock,	
Tidal Canal completed and Alameda becomes an island. 1902	
1920-1930 Era of civic building, followed by polit	tical scandal.
The Naval Air Station commissioned in preparation for WWII and the City's population reached 89,000.	
1966 SF Bay filled to create Southshore ne	eighborhoods.
Measure A passed by voters to prohibit multifamily housing citywide.	
1977 SF Bay filled to create Harbor Bay ne	ighborhoods and business park.
Citizens initiative approved by voters ("Measure A") to amend Article 26 to prohibit residential density above 21 units per acre citywide.	
1993 Closure of NAS Alameda Naval Statio	on begins. City loses over 16,000 jobs.
Multifamily housing overlay zoning district adopted. Housing Element certified by State for first time since 1990.	
Alameda's population grows to appro on-island employment grows to appro	
2020 COVID-19 pandemic spreads to the U	Jnited States and Alameda.
City Council places a measure on the citywide prohibition on multifamily he densities to support affordable housi	ousing and residential



FIGURE 1.1: ALAMEDA AND SURROUNDING AREAS IN 1908

1.2 LOOKING BACK: A BRIEF HISTORY OF ALAMEDA

At the time of the arrival of the Spanish, Alameda was a peninsula of land covered by a dense forest of coastal live oak and inhabited by the Confederated Villages of Lisjan, an Ohlone people who spoke Chochenyo and sustained themselves through hunting, fishing and gathering. Settlement of Alameda by Europeans and other non-natives began in 1820, when Luis Peralta divided Rancho San Antonio among his four sons. Alameda derived its original name, "the Encinal," from the large stands of native oaks ("encino" means "oak" in Spanish) on the Main Island. The name "Alameda," meaning "grove of poplar trees," was given to the City as a poetic gesture upon popular vote in 1853.

In 1849, the California Gold Rush brought Americans and Northern Europeans to the San Francisco Bay. Many made their fortunes in supplying goods and services to the region's burgeoning population. Among these were two young entrepreneurs, William Worthington Chipman and Gideon Aughinbaugh, who purchased the Encinal from Antonio Maria Peralta for \$14,000 in 1851, the year after California became a state. They subdivided the land and sold tracts for residences and orchards. By 1872, three separate settlements, the Town of Alameda, Encinal, and Woodstock, were established in the east, central and western sections of the peninsula. The Town of Alameda was granted a charter by the State Legislature in 1854; incorporation of all peninsula settlements under one local government occurred in 1872.

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Early growth of residential, commercial and industrial areas depended upon water and rail transportation and an excellent climate. (See Figure 1.1, Alameda and Surrounding Areas in 1908.) The City's industrial waterfront and small commercial districts ("the stations") were developed in conjunction with rail improvements, while neighborhoods of Victorian homes and beach resorts were built attracting tens of thousands of weekend visitors. Major shipyards and Neptune Beach (the "Coney Island of the West") were established along the northern and southern shores to take advantage of the island's coastal assets. In 1902, the Tidal Canal was completed and Alameda became an island.

In the decades between 1920 and 1970 the City witnessed cycles of boom and bust. Following an enlightened era of civic building during the 1920s, Alameda endured difficult years of political scandal and corruption through the 1930s. The entry of the

United States into World War II focused the City's attention on the war effort. During World War II, shifts ran around the clock at the Alameda Naval Air Station (commissioned in 1940) and in the City's shipyards. The City's population reached an all-time high of 89,000.

In 1973, the voters of Alameda approved a citizens initiative to amend the City Charter to prohibit construction of all multifamily housing in Alameda. City Charter Section 26-1 states, "There shall be no multiple dwelling units built in the City of Alameda." The Council subsequently defined buildings with multiple dwelling units as a building with more than two units. In 1991, the voters approved a second initiative to add Charter Section 26-3, which limits residential density to one unit for every 2,000 square feet of lot area. The two measures, collectively referred to as "Measure A," effectively stopped the development of any multifamily housing in Alameda from 1973 to 2013.

In 1993, the Federal Government announced that it would be closing the Naval Air Station in Alameda, which had operated in western Alameda since the early 1940's. The departure of the Navy resulted in a loss of over 16,000 jobs, but also provided an opportunity for the community to re-envision a future for the western third of the island. In 1996, the City Council adopted a Community Reuse Plan, which envisioned a new mixed-use, waterfront community with over 300 acres of waterfront open space, parks, and conservation areas, called Alameda Point.

In the 2000's the Alameda community continued its planning efforts to address changing local and regional conditions. In 2003, the City Council adopted the Alameda Point General Plan Element, the Northern Waterfront General Plan Element in 2007, and an updated Transportation Element in 2008. In 2009, the City Council adopted a State mandated density bonus ordinance, which provides an opportunity to exceed the Measure A residential density limits and waive the prohibition on multifamily housing, if a project includes specified amounts of deed-restricted affordable housing units. In 2012, pursuant to State Housing Element Law requirements to identify sufficient

land zoned for residential use to accommodate the City's Regional Housing Needs Allocation, the City Council adopted an updated Housing Element and a Multifamily Residential Combining Zone (MF District), which permits multifamily housing by right with a residential density of up to 30 units per acre on specific sites in Alameda. In 2013, construction began on the townhomes on 5th Street across from the Alameda Landing shopping center - the first privately constructed multi-family homes in Alameda in over 40 years. In 2015, the Council updated the Housing Element for the period of 2015 to 2023, and an updated Safety and Noise Element and Transportation Choices Plan in 2017. In 2018, the City Council adopted an Economic Development Strategic Plan, a five-year road map for economic development programs and initiatives. By 2019, the community completed and the City Council adopted a Climate Action and Resiliency Plan (CARP), which sets the overarching goal of making Alameda a resilient community.

By 2020, Alameda had grown to be a vibrant mixed-use community with a population of approximately 79,000 residents and a variety of innovative and traditional businesses employing an estimated 25,000 people.





THE 2020 PANDEMIC AND THE 2040 GENERAL PLAN

General Plan 2040 was largely crafted and finalized in the midst of the 2020 Coronavirus Pandemic, a health crisis the nation had not seen in over 100 years. As the community worked on its General Plan for the future, the community also faced questions about recovery and the need to become a more resilient and innovative community. Lessons from the pandemic enriched and helped shape the creation of a bolder General Plan that emphasizes the power and benefits of equity, resiliency, partnerships, and technology.



A RENEWED FOCUS ON EQUITY

COVID-19 demonstrated that everyone has the right to live in a safe and healthy community. The people most affected by the pandemic were also the most vulnerable members of the community before the pandemic. Alameda must redouble its efforts to ensure health, safety, housing and economic stability for all of its residents and expand efforts to consider all planning and investment decisions through the equity lens.



BUILDING RESILIENT COMMUNITIES

The pandemic reinforced the value of living in walkable, safe, and connected communities with access to open space and nature and the importance of building sustainable, livable and resilient neighborhoods.



PARTNERSHIPS, COORDINATION & COMMUNICATION

The pandemic revealed the importance and need for every level of government and the community to work together in a coordinated way toward a collaborative, shared response and recovery. The pandemic showed the power and potential of the community to develop innovative responses (St. George Spirits making hand sanitizer, merchants building outdoor spaces for safe retail and restaurants, and community volunteers maintaining the Slow Streets program) and work in partnership with government to address Alameda's biggest challenges.



INNOVATION AND RISK TAKING

The pandemic revealed the power of innovation and calculated risks. During the pandemic, the City and the Alameda community proved that it can work together to make decisions quickly and take risks. In a matter of weeks, the community and the City decided that Park Street and Webster Street needed to be transformed from the four lane arterials they had been for over 100 years to two-lane roads with additional space for people and commercial enterprise. Within weeks, the City and the community decided it needed to create its "Slow Streets" program to create space for safe public walking and exercise during the pandemic. These experiments in city planning and public space transformation showed the power of good ideas and the willingness to experiment and take risks for the benefit of the community and provided examples that will help the City and community to address a full range of problems and challenges facing the community over the next 20 years.





1.3 LOOKING AHEAD: ALAMEDA IN 2040

Located at the center of a growing and evolving San Francisco Bay Area, the next 20 years will be a period of change presenting both challenges and opportunities for the Alameda community.

POPULATION GROWTH AND HOUSING:

By 2040, according to the Association of Bay Area Governments, the nine-county San Francisco Bay Area is projected to grow to include 4.5 million jobs and 9.3 million people. The continued growth in employment and population will continue to create housing and transportation challenges and economic opportunities both regionally and locally.

Alameda will continue to provide for its share of the growing regional housing need as required by State Housing Law and Alameda's regional housing needs allocation, which is projected to include the need for approximately 10,000 to 12,000 new housing units in Alameda over the next 20 years. The majority of the growth in Alameda will occur on the former Naval Air Station lands and along the Northern Waterfront of Alameda. Both areas are designated as priority development areas in the regional plan, Plan Bay Area. Additional housing opportunities exist for accessory units and additional units on existing residential properties, and along the Park Street and Webster Street commercial corridors and the community's several shopping center sites. It is expected that Alameda's existing historic neighborhoods and commercial main streets will look very similar in 2040 as they do today and as they did in 2000, but these neighborhoods and mixed use districts will be safer, more resilient to climate change, generate less greenhouse gases per unit or business, and they will accommodate some of the additional housing to meet local and regional housing needs.

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WHAT IS AN EQUITABLE AND INCLUSIVE CITY?



An equitable and inclusive city is a city that works to eliminate disparities, eliminate burdens, extend community benefits, provide affordable and fair access to housing, and provide socio-economic opportunities for all historically marginalized as well as systemically under-served and underrepresented populations.

Achieving equity and inclusiveness requires intentional engagement and consideration of under-served and underrepresented populations in all decisions and working intentionally to recognize, address and prevent repetition of the injustices suffered by communities of color, class, gender, age, sexuality, spiritual belief, nationality, immigration status, political beliefs and/or tribal affiliation throughout Alameda's history.

JOB GROWTH AND EMPLOYMENT:

Over the next 20 years, the San Francisco Bay Area is expected to remain a global leader and center for the development of new technologies, research, development, and innovation. The growing Bay Area economy is expected to create opportunities for business and job growth in Alameda and increase on-island employment opportunities for Alameda residents. Alameda's business community is expected to create between 10,000 to 12,000 new jobs over the next twenty years. Most of the new jobs will be located at Alameda Point, along the Northern Waterfront, and in the Harbor Bay and Marina Village business parks.

TRANSPORTATION AND CLIMATE CHANGE:

Over the next twenty years, transportation and climate change will pose major challenges for Alameda and the region. Regional employment growth and housing shortages will continue to strain the regional roadway and transit systems, including Alameda's connecting network of streets, roads, and transit systems. Automobile trips will continue to increase regional greenhouse gas emissions and contribute to global warming and the resulting rising of the Bay that surrounds this island community and the groundwater below the community. In the next 20 years the community will experience rising sea and groundwater levels and more frequent flooding in Alameda.

EQUITY AND INCLUSION:

The global COVID-19 pandemic of 2020 demonstrated that living on an island does not protect us from global and regional challenges, and the pandemic revealed the severity of the inequalities within the Alameda community. Over the next 20 years, Alameda and the region will face the need to address the inequities that have been systematically embedded in the Bay Area and Alameda economy, housing policies, transportation system, public safety standards and priorities, and health care systems over the last 150 years. In 2020, it became apparent that the most vulnerable members of our community are the least likely to be able to "shelter in place," "work from home," and educate their children "virtually." Many in the Alameda community do not have access to affordable housing, adequate transportation, or adequate health care. In 2020, children and seniors are the most likely to suffer severe injuries or death while walking across the street in Alameda, and there are people living in tents, cars, and cardboard structures in Alameda's parks and on Alameda's streets.

1.4 THEMES OF THE GENERAL PLAN

The General Plan Elements and their associated policies and actions provide a policy framework to guide future decisions to achieve four overarching themes.

THE GENERAL PLAN'S POLICIES REINFORCE FOUR BROAD THEMES:



Promote a healthy, equitable and inclusive city.

General Plan 2040 policies promote equity, environmental justice, and a high quality of life for everyone irrespective of income, race, gender, sexual orientation, cultural background or ability by recognizing and changing local policies, programs, ordinances, and practices that serve to perpetuate injustices suffered by under-served and underrepresented populations and proactively engaging these populations in all City decision making.



Enhance mobility and accessibility.

Living on an island in the center of a major metropolitan area contributes to the high quality of life in Alameda, while creating unique challenges and opportunities for mobility. General Plan 2040 policies support and enhance mobility and accessibility by increasing transportation choices and options for Alameda residents, businesses and visitors, eliminating severe injuries and fatalities on Alameda streets, and making the shoreline more accessible.



Protect the environment, respond to the climate crisis and meet regional responsibilities.

Alameda's island geography and environmental setting is very vulnerable to the impacts of climate change, including rising sea and groundwater levels, more severe droughts, wildfire smoke, and other impacts of climate change. General Plan 2040 policies support global, regional, and local efforts to reduce greenhouse gas emissions locally and regionally and prepare for climate change through smart growth development policies, strategic infrastructure improvements, and expanding and protecting natural conservation areas, marshes, and wetlands.



Preserve and enhance Alameda's distinctive character and cultural diversity.

Alameda is distinguished by its island setting, diverse neighborhoods, main streets, historic architectural styles, extensive tree canopy, walkability and livability, and cultural diversity. Alameda's character is further defined by its wide range of building types, including multifamily buildings, single family buildings, and mixed use buildings, which provide for a range of housing needs including lower income and workforce housing. These diverse physical and social characteristics contribute to the high quality of life in Alameda and provide the framework for shaping development, conserving resources, and maintaining a thriving economy. General Plan 2040 policies manage growth to address current challenges and responsibilities and support the characteristics that make Alameda a special place to live, work, learn, and recreate.









1.5 IMPLEMENTATION AND PRIORITY SETTING

The General Plan establishes the local development and conservation policies necessary to guide physical development and protect the general health, safety and welfare of the community. The General Plan is implemented by ensuring that all City ordinances, plans, and actions are consistent with the General Plan, that the adopted City Budget and Capital Improvement Program is consistent with the General Plan, and that every land use, development, conservation, preservation, open space and recreation, and public safety decision is consistent with the General Plan.

California Government Code § 65400 et seq. requires that the City of Alameda annually review the adequacy of the General Plan and progress made toward meeting the City's regional housing need allocation. The annual General Plan review provides the opportunity to assess the community's progress toward achieving its goals as articulated in the General Plan, annually review city resources and set implementation priorities for the upcoming year in consideration of available public resources and current community priorities and needs.

The Alameda Municipal Code, issue specific and area specific plans adopted by the City Council also play an important role implementing the General Plan. All these plans must be consistent with the General Plan, and they provide specific, shorter term actions to achieve longer term General Plan policy objectives. Examples include:

- Municipal Code Development Regulations
- Design Guidelines and Objective Design Standards
- Climate Action and Resilience Plan
- Transportation Choices Plan
- Parks and Recreation Master Plan
- Local Hazard Mitigation Plan
- Emergency Operations Plan
- Alameda Point Waterfront and Town Center Specific Plan
- Alameda Point Main Street Neighborhood Specific Plan
- Active Transportation Plan (Bicycle and Pedestrian Plan)
- Vision Zero Action Plan

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O2 LAND USE + CITY DESIGN ELEMENT

The Land Use and City Design Element establishes goals, policies and actions to ensure the orderly development of the community and to provide a sustainable, safe and healthy environment for all Alamedans. The Element establishes how land uses are to be distributed across the city and where new development may be accommodated in support of the General Plan, Climate Action and Resiliency Plan, Transportation Choices Plan, and the regional sustainable communities strategy, Plan Bay Area goals and policies. The policies in this element are intended to provide for the health, safety, housing, employment, service, and recreational needs of all Alamedans.



THE GOALS OF THE LAND USE + CITY DESIGN ELEMENT ARE:

GOAL 1



CHARACTER

Maintain and enhance safe, healthy, sustainable, economically and culturally diverse, complete and connected neighborhoods, districts, and waterfronts that support a high quality of life and fair and equitable access to affordable housing, employment, education, recreation, transportation, services, and participation in public decision making.

GOAL 2



ECONOMY

Strengthen and diversify the Alameda business community and economy.

GOAL 3



SUSTAINABILITY

Make Alameda a more sustainable and environmentally sensitive, waterfront community.

GOAL 4



DESIGN

Promote sustainable, high-quality, accessible city design.

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GOAL 1: CHARACTER

Maintain and enhance safe, healthy, sustainable, economically and culturally diverse, complete and connected neighborhoods that support a high quality of life and fair and equitable access to affordable housing, employment, education, recreation, transportation, services, and participation in public decision making.

POLICIES:

LU-1

Inclusive and Equitable Land Use and City Design.

Promote inclusive and equitable land use plans, policies, zoning regulations, and planning processes. (See also Policies CC-1, CC-2, ME-1, ME-2, and ME-3).

Actions:

- a. Equitable Plans. Ensure that citywide and neighborhood plans are inclusive, non-discriminatory, and culturally responsive. Plans should reduce disparities, promote equitable access, minimize the impacts of income disparity, minimize displacement and promote fair access to affordable housing.
- **b. Exclusionary and Discriminatory Policies.** Rescind existing policies, programs, or development standards that are exclusionary or discriminatory.
- c. Equitable Distribution. Ensure that the uses, facilities, and services that are needed for a high quality of life are distributed equitably throughout the city.
- d. Inclusive Processes. Ensure robust community involvement in all city planning, public investment, and development review decision making by actively engaging all segments of the community proactively at the start of processes, especially those that have historically been less engaged in city decision-making such as lower-income families, people of color, indigenous peoples, and youth.
- **e. Equal Representation.** Appoint a broad cross section of the community to commissions, boards and advisory committees.

LU-2

Complete Neighborhoods. Maintain complete, safe, healthy, and connected neighborhoods that support a mix of uses and meet the needs of residents of all ages, physical abilities, cultural backgrounds and incomes. (See also Policy LU-15).

Actions:

- a. Healthy Neighborhoods. Provide equitable and safe access to housing, parks and recreation facilities, community services, public health services, schools, child care facilities, and neighborhood amenities in all neighborhoods.
- b. Parks and Open Space. Provide a comprehensive and integrated system of parks, trails, open space, and commercial recreation facilities within a safe and comfortable 1/4 mile walk from all neighborhoods. (See also Figure 6.2).
- **c. Water Access.** Provide convenient and safe bicycle and walking access to the waterfront from all residential neighborhoods.
- d. Accessory Units. Permit accessory dwelling units in all residential and mixed-use zoning districts to increase the supply of small, more affordable housing units.
- e. Affordable Housing. Permit rental and ownership housing opportunities for all income levels, ages and family types and sizes in all residential and mixed-use zoning districts.

SPOTLIGHT

WHAT ARE THE QUALITIES THAT GIVE ALAMEDA ITS DISTINCT CHARACTER?

General Plan policies embrace and support the desirable qualities and assets that give Alameda its distinct character. Understanding those qualities is important in order that future community design decisions and investments continue to support, enhance and maintain Alameda's character. Examples include:





WALKABILITY

Alameda, like all great places, is walkable. Short blocks, generally two lane roads, a traditional street grid, street trees, and a network of public parks and open spaces, a pair of commercial "Main Streets," and human-scaled buildings, make walking in Alameda pleasant and comfortable.

CITY OF NEIGHBORHOODS AND MAIN STREETS

Alameda is a city of diverse neighborhoods and main streets that has endured and evolved over time. Walkable, mixed-use neighborhoods and commercial main streets where people live and work, own homes and rent, with nearby parks serving families, seniors, and kids, make living in Alameda feel more like living in a small town than living in a metropolitan city of 80,000. General Plan policies preserve and build on this neighborhood fabric to accommodate inclusive residential and commercial growth while maintaining its charm.

LEAFY STREETS

The mature deciduous and evergreen trees along Alameda's city streets and in its parks are critical to Alameda's neighborhood character. Systematic planting and maintenance of a variety of younger specimen trees in the future is essential to maintaining and expanding Alameda's urban forest for future generations.

CONNECTION TO NATURE

Memorable towns and cities are often surrounded by natural areas or defined by natural features, such as a river or a lake. Alameda's island setting contributes to its distinctive feeling of being connected to nature. Alameda's often tree-lined street grid provides multiple ways to explore the outdoors and easily connect to the water's edge. Maintaining Alameda's network of public open spaces and parks and promoting improvements to retain and enhance access to the water for all Alamedans will be essential to maximizing and preserving Alameda's unique natural assets.

HUMAN SCALE

Alameda is "human scale." Tall trees, narrower streets with slower moving traffic, and buildings generally one to four stories in height fronting onto the sidewalk creates an environment that is best appreciated by the human senses and at eye level. Maintaining a human scale in all changes to landscapes, streets, and buildings is maintaining Alameda's character.

QUALITY ARCHITECTURE AND DESIGN

Alameda buildings represent a wide range of architecture styles dating back to the 19th Century. Many have architectural significance and most are well-crafted, comfortable, and rich with personality and color. Continuing to promote historic preservation and architectural design excellence through City development regulations, incentive programs, such as Mills Act contracts, façade grants and other programs discussed in the General Plan is essential.

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SPOTLIGHT

WHAT IS AFFORDABLE HOUSING?

"Affordable" is generally considered to mean that the household does not need to pay more than 30 percent of its income on housing costs. In Alameda, land costs and construction costs are high and housing is in short supply. As a result, housing costs are high and generally not affordable to households with a moderate or lower income. Naturally-occurring affordable housing tends to occur primarily in older buildings, making it a priority for the City to preserve these buildings from earthquakes, development, or any number of threats to the supply of more affordable units.

To support construction of units that will be affordable to lower income households, the City of Alameda requires that every housing development with 10 units or more, deed-restrict some of the new housing units in the project for very low-income, low-income, and moderate-income households. The deed-restriction limits the price of the home or the rent of the home to 30% of each households' income for those deed-restricted units. The cost to subsidize the construction of the deed-restricted units is added to the cost to construct the non-deed-restricted units in the project. In 2020, the City of Alameda requires all projects at Alameda Point to deed-restrict 25% of the units. Everywhere else in the City, 15% of the units must be deed-restricted.

In 2020, the areawide median income in the East Bay for a family of four was approximately \$119,200 per year. A very low-income family of four has an income that is no more than half or 50% of the area median income (AMI). A low-income household of four makes up to \$80\% of AMI and a moderate-income household makes up to 120% of AMI.



Everett Commons is an example of recently constructed affordable housing in Alameda.

- f. Multi-family and Shared Housing. Permit well-designed multi-family and shared housing opportunities, including co-housing, congregate housing, senior assisted living, single room occupancy housing, transitional housing, emergency warming shelters, and shelters for the homeless in all residential zoning districts and in all mixed-use zoning districts.
- **g. Child Care.** Permit child care facilities and services in all residential and mixed-use zoning districts.
- h. Home-based Businesses. Permit small employment and business opportunities such as home occupations, live work, and "cottage" businesses in all residential and mixed-use zoning districts to reduce commute hour traffic and associated greenhouse gas emissions.
- i. Local Food. Permit farmers' markets and community gardens in all residential and mixed-use zoning districts to increase access to healthy foods for all residents throughout the city.

LU-3

Complete Streets. Promote safe and walkable neighborhoods with inter-connected well-designed streets that serve the needs of all Alamedans and all modes of transportation. (See also Policies ME-1, ME-5, ME-6, ME-7, ME-14, CC-7, HE-12 and the 'What Makes a Complete Street?' Spotlight in the Mobility Element).

Actions:

- a. Connectivity. Connect neighborhoods and major destinations such as parks, open spaces, the waterfront, civic facilities, employment centers, retail and recreation areas with transit, pedestrian and bicycle infrastructure, and avoid sound walls, gated streets and other similar barriers that separate neighborhoods and decrease physical and visual connectivity.
- b. People-Friendly Environment. Provide wide sidewalks, street shade trees, pedestrian lighting, bike parking, bus benches and shelters, curb ramps, and other bike and pedestrian amenities to support walking, rolling, strolling, the access needs of people with disabilities, window-shopping and sidewalk dining.

- **c.** Common Areas. Provide spaces for community interaction to encourage a sense of collective ownership of public areas.
- **d. Safety.** Eliminate traffic related fatalities and severe injuries on Alameda streets by providing safe, well-designed pedestrian crossings with adequate visibility for motorists and pedestrians, minimizing curb cuts and driveways that cross public sidewalks and bicycle facilities, providing low-stress bicycle routes, and designing streets to keep automobile travel speeds below 25 miles per hour.

LU-4

Neighborhood Transitions. Ensure sensitive well designed transitions between neighborhoods and adjoining business districts to minimize nuisances while encouraging mixed-use development that provides commercial services or employment opportunities in close proximity to neighborhoods. (See also Policy HE-15).

LU-5

Neighborhood Mixed-Use. Maintain, promote and support neighborhood-oriented business districts to provide local-serving retail and commercial uses with multi-family housing opportunities above the ground floor commercial uses. (See also Policy HE-11).

Actions:

- **a. Neighborhood Serving Commercial Uses.** Permit continuation and re-investment in existing, small, legal non-conforming neighborhood-serving commercial uses in commercial buildings that predate the zoning code.
- **b.** Neighborhood Serving Retail Uses. Permit neighborhood serving retail uses in residential districts where office uses are already permitted.

LU-6

Waterfront Mixed-Use. Provide a wide variety of maritime, commercial, residential, civic, and recreational uses along the waterfront that compliment maritime activities, provide economic opportunities and jobs, and draw residents and visitors to the shore.

Actions:

- **a. Water Dependent Businesses.** Prioritize the current and future needs of public ferry systems, water taxis and shuttles, recreational and boating businesses, and other businesses and activities that require a waterfront location to operate.
- **b.** Supporting Services. Permit complementary maritime serving and visitor serving commercial services and uses to support the public waterfront access and maritime businesses on the waterfront.
- **c. Public Access and Bay Trail.** Ensure waterfront public access and Bay Trail improvements in all new waterfront development.
- d. Waterfront Residential. Ensure that all new waterfront residential development is set back an appropriate distance from the water's edge, such that the public access and the Bay Trail feels public, yet also safe for visitors and Bay Trail users.
- **e. Emergency Response.** Preserve and maintain appropriate waterfront facilities (e.g. docks, wharfs, and parking areas) that may be needed for the movement of people, goods, and supplies after an emergency or natural disaster for disaster response and recovery.



LU-7

Joint Use. Partner with Alameda Unified School District and other institutions to provide public access for shared and joint use of open space, recreational and community facilities. (See also Policy OS-2).

LU-8

Arts and Culture. Support and promote a diversity of arts and cultural facilities and programs throughout the city for people of all ages. (See also Policy LU-11).

Actions:

- **a. Strengthen Cultural Resources.** Partner with educational institutions, libraries, arts and cultural organizations, the business community and creative industries to strengthen Alameda's network of cultural resources and development of the arts.
- **b.** Accessibility of Cultural Facilities and Programs. Encourage the development of arts, entertainment and cultural facilities that are both physically and financially accessible to all.
- c. Contributions to Public Art. Promote and support the public art requirement for new developments within the city.

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GOAL 2: ECONOMY

Strengthen and diversify the Alameda business community and economy.

POLICIES:

LU-9

On-Island Goods and Services. Encourage the development of a broad range of commercial businesses and services in Alameda to provide for the diverse needs of the Alameda community and reduce the need to travel offisland to acquire goods and services.

LU-10

Park Street and Webster Street: Alameda's "Main Streets." Support, promote and enhance Park and Webster Streets as the city's two iconic and vibrant historic "Main Streets" to provide Alamedans with a broad mix of retail stores, restaurants, entertainment, hospitality, personal and professional services, and transit-oriented mixed-use housing opportunities. (See also Policies LU-18 and LU-28).

Action:

- **a.** Business District Partnerships. Work in partnership with the West Alameda Business Association and the Downtown Alameda Business Association to support, strengthen, and diversify the Park and Webster Streets commercial mixed-use districts.
- **b. Facade Improvement Programs.** Provide support for private property owners through facade improvement programs and streamlined permitting processes to improve their buildings and facades and support the overall attractiveness and success of the business districts.

LU-11

On-Island Employment. Increase on-island employment to provide additional employment opportunities for Alameda residents, reduce commute hour congestion, and reduce transportation related greenhouse gas emissions.

Actions:

- **a.** Training and Intervention Strategies for Populations Facing Barriers. Support programs, strategies and interventions that break down barriers to employment for historically marginalized populations such as youth, seniors, people with disabilities, the formerly incarcerated, and residents with limited English proficiency.
- **b. Partnerships.** Partner with the College of Alameda, the Alameda Unified School District and other institutions to offer more coursework and training oriented toward emerging industries such as green economy, blue economy (sustainable use of ocean resources for economic growth and jobs), and other high-growth employment categories.

LU-12

Business and Employment Preservation. Protect and preserve Business and Employment and Maritime Commercial and Industrial Areas by prohibiting introduction of residential uses and discouraging the rezoning of property in these areas to allow residential use.

SPOTLIGHT

ALAMEDA'S "FRONT DOORS": PARK & WEBSTER STREETS

Alameda's two main streets, Park Street and Webster Street, are integral to Alameda's identity and community fabric. Park and Webster streets are the gateways that welcome those traveling by bridge or tunnel into Alameda and local neighborhoods' needs.

The General Plan promotes the continued development and evolution of these transit-oriented streets as mixed-use main streets to accommodate local-serving commercial, employment, entertainment, and lower cost housing opportunities.



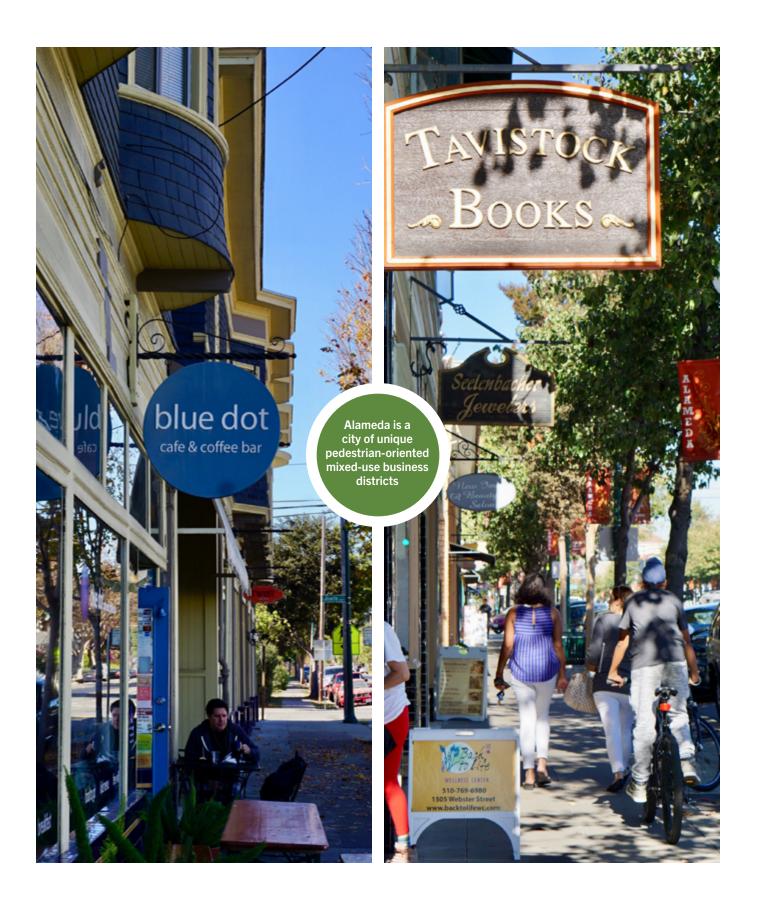


LU-13

Green Economy. Promote a green economy that reduces greenhouse gas emissions generated by Alameda businesses. (See also Policies CC-6, CC-9, CC-11, CC-14, HE-2, HE-10 and HE-11).

Actions:

- a. Incentives. Provide incentives and support for businesses and organizations that benefit Alamedans and the environment by reducing their greenhouse gas emissions and air pollution through clean energy alternatives, EV charging, electrification of buildings and operations, waste diversion, and other environmental best practices.
- b. Green Business Practices. Encourage
 Alameda businesses and industries to become
 more sustainable and continue to make
 positive contributions to the community
 by, for example, hiring locally, supporting
 telecommuting, utilizing solar power, reducing
 waste, and prioritizing active transportation,
 trasit, and electric vehicles. This includes
 providing electric vehicle and e-bike charging
 stations, long-term bike parking options, and a
 variety of transit options.
- c. Housing and Transportation. To reduce greenhouse gas emissions generated by employee commute trips, support housing at all affordability levels in proximity to employment areas. Improve bus, ferry, bicycle and pedestrian facilities in proximity to employment areas, and allow child care facilities in business areas.





GOAL 3: SUSTAINABILITY

Make Alameda a more sustainable and environmentally sensitive community.

POLICIES:

LU-14

Planning for Climate Change. Prepare for climate change and reduce greenhouse gas emissions regionally and locally. (See also Policies CC-3, CC-4, CC-10 and HE-10).

Actions:

- a. Sustainable Communities Strategy. Maintain consistency between the City's General Plan, the Municipal Code, and the region's Sustainable Communities Strategy Plan Bay Area.
- b. State and Regional Programs. Continually evaluate City policies, ordinances, and actions, to ensure that the City supports and is an active participant in state and regional efforts to address climate change through greenhouse gas emission reduction, transportation system improvements, and increased affordable housing supply near job centers, public transportation facilities, and other services.

LU-15

Housing Needs. Provide land appropriately zoned to accommodate the Regional Housing Needs Allocation and support the region's Sustainable Communities Strategy to address climate change. (See also Policies LU-2, LU-16, CC-3, and CC-10).

Actions:

- a. Housing Element Updates. Utilize the Statemandated eight year Housing Element update cycle to rezone land and determine the residential densities and housing types needed to accommodate regional housing needs in residential neighborhoods and transit-oriented mixed-use districts as described in policies LU-2, LU-16, and CC-10.
- **b. Land Use.** Prioritize the use of limited land in Alameda for residential purposes by optimizing the number of housing units allowed on each acre of residentially zoned land.



SPOTLIGHT

ALAMEDA'S RELATIONSHIP WITH THE WATER

Alameda is defined by water. A source of food for the first Native American inhabitants along the northern waterfront, the Bay waters continued to provide opportunities for Alameda throughout its history, including the Alaska Packers fleet that started docking at Encinal Terminals in the 1890's, the shipbuilding industries at what is now Alameda Marina and Marina Village, and the U.S. Navy's deep water port at Alameda Point.

Water continues to provide opportunities for Alameda. Walking along the beach, windsurfing in the bay, rowing in the estuary, seeing views of the water and boat masts rising above buildings, and seeing and hearing the sounds of sea birds is all possible because

of the water that surrounds us. Improving access and connectivity to the water and waterfront increases these opportunities for all Alameda residents.

Alameda's relationship with water is also getting more challenging. The San Francisco Bay around Alameda and Alameda's groundwater are both rising. Alameda must adapt to this new relationship with water. In some areas, allowing water to encroach, such as at the wetlands at Alameda Point, is the preferred approach. In other areas, seawalls and bulkheads will need to be raised. In all areas, the system of storm sewer, lagoons, and the network of pumps that keep Alameda dry will all need to be upgraded and improved to accommodate more water more often.

photo: Maurice Ramirez

c. Adaptive Reuse for Housing. To increase the supply of smaller, more affordable housing opportunities and preserve existing urban scale and character, consider exempting the adaptive reuse of existing buildings from zoning district residential density limitations.

LU-16

Climate-Friendly, Transit-Oriented Mixed-Use Development.

Permit higher-density, multi-family and mixed-use development on sites within walking distance of commercial and transit-rich areas to reduce automobile dependence, automobile congestion, greenhouse gas emissions, and energy use; provide for affordable housing; make efficient use of land; and support climate friendly modes of transportation, such as walking, bicycling, and transit use. (See also Policies LU-15, LU-33, LU-34, CC-3, CC-10, ME-6, ME-17, ME-18, ME-21, HE-5, HE-10 and HE-11).

Actions:

- a. Transit-Oriented Zoning. To support additional ferry service, bus service, and future heavy rail service in Alameda, amend the zoning code to allow for higher-density, mixed-use, multifamily housing in transit-rich locations. (See Where are the Transit Rich Locations in Alameda Spotlight).
- b. Mixed-Use Shopping Centers. Amend the zoning code to facilitate the redevelopment and reinvestment in Alameda's single-use retail shopping centers and large open parking lots with higher density mixed-use development with ground floor commercial, service, and office uses, and upper floor multifamily housing.
- c. Incentives. Utilize strategic infrastructure investments, public lands, and public/private partnerships to incentivize and support mixed-use, transit-oriented development in transit rich locations.
- d. Transportation Demand Management Programs. Require new developments to include transportation services and facilities, such as bicycle parking facilities, to support the City's mode shift and climate goals.
- e. Parking Requirements. Amend the Municipal Code to replace minimum car parking requirements with maximum parking requirements to disincentivize automobile ownership and reduce construction and land costs to help make housing more affordable. Require a significant proportion of dedicated spaces and infrastructure to support 'Clean Air Vehicles' like EV's, carpooling vehicles and hybrids.



PLAN BAY AREA

Plan Bay Area is a long-range plan charting the course for the future of the nine-county San Francisco Bay Area. Plan Bay Area 2050 will focus on four key issues—the economy, the environment, housing and transportation—and will identify a path to make the Bay Area more equitable for all residents and more resilient in the face of unexpected challenges. Plan Bay Area processes are used to allocate housing targets for jurisdictions throughout the region, including the City of Alameda. Those local housing allocations are outlined in the Housing Element of the General Plan.

FOUR KEY ISSUES:



ECONOMY



HOUSING



ENVIRONMENT



TRANSPORTATION

Priority Development Areas, commonly known as PDAs, are areas within existing communities that local city or county governments have identified and approved for future growth. These areas typically are accessible by one or more transit services; and they are often located near established job centers, shopping districts and other services.

Priority Conservation Areas, commonly known as PCAs, are locations designated for the protection of natural habitats and the preservation of open space for future generations. This includes farming, ranching, recreational and resource lands.

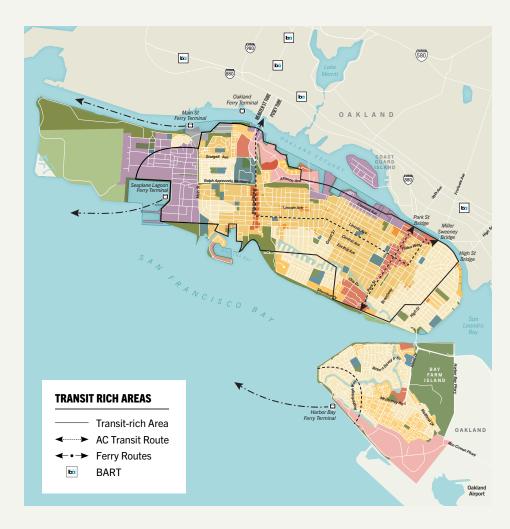


SPOTLIGHT

WHERE ARE THE TRANSIT-RICH LOCATIONS IN ALAMEDA?

As shown in the figure, large areas of Alameda are transit-rich, and with the expansions of transit service in partnership with AC Transit and WETA to serve Alameda Point and the historically underserved areas of West Alameda, most of Alameda is now transit-rich and better able to support the transportation needs of existing and future residents in these areas.

Consistent with California Public Resources Code sections 21064.3 and 21155, Alameda General Plan 2040 considers a transit-rich location to be a property within a half mile of a high-quality transit corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours, a ferry terminal served by bus service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.



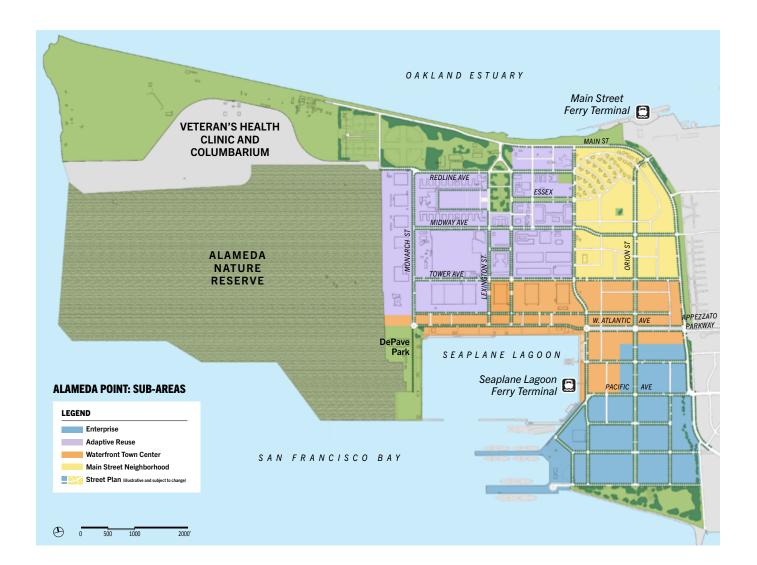
LU-17

Adaptive Reuse and Restoration. Support and encourage rehabilitation, restoration, and reuse of existing structures to retain the structure's embodied energy and reduce the generation of waste. (See also Policies LU-25, CC-17 and CC-18).

Action:

- **a.** Intensification and Reinvestment in Existing Buildings. Promote reinvestment and reuse in existing buildings with facade improvement grant programs and permissive zoning provisions.
- **b.** Innovative Design Solutions. Encourage and support innovative design solutions for the restoration and reuse of older buildings for new uses.
- **c.** Existing Materials. Discourage the removal of existing materials to the extent feasible and architecturally appropriate to promote resource conservation and preservation of existing architectural details and materials.

32



LU-18

Alameda Point Waterfront and Town Center Mixed-Use District. Consistent with the Waterfront and Town Center Specific Plan, create a compact, transit-oriented mixed-use urban core with an iconic main street and vibrant waterfront experience that leverages the unique character and existing assets of the area to catalyze a transformation of the larger Alameda Point area. (See also Policies LU-10 and HE-10).

Actions:

- **a. Mixed-Use.** Create a pedestrian, bicycle, and transit supportive mixed-use urban waterfront environment designed to provide for a mix of uses that include waterfront and visitor-serving uses, retail, service, entertainment, lodging, recreational, and medium to high-density residential.
- **b.** A 'Main Street' for Alameda Point. Identify and designate a commercial main street for Alameda Point and preserve commercial opportunities on that street for the retail and commercial businesses that will be attracted to Alameda Point once new housing and new industries and employers have settled at Alameda Point.



SPOTLIGHT

THE IMPORTANCE OF PROMOTING SUSTAINABLE GROWTH SOLUTIONS

With shifts in technology, the impact of the Coronavirus pandemic, and the climate bringing new demands on services and infrastructure, the City of Alameda must maximize limited resources. More efficient land use leads to a more cost and space efficient transportation network for all Alamedans. More residents allows transit agencies to add more service which draws even more Alamedans to use transit. Investments in transit, walking and rolling are critical in addition to adding housing that facilitates efficient transportation modes. By 2040, Alameda could see BART add stations while having faster and more frequent AC Transit and Ferry service, all connected together by a safe network of streets and paths. Growth with inclusive design makes transportation options more reliable, enjoyable and affordable for all Alamedans, including drivers who find some of their neighbors are choosing travel options that free up space for those who are most car dependent.

More efficient land use also leads to more cost-efficient infrastructure. The shift in transportation towards more transit, walking and rolling also saves taxpayers on road repairs while reducing overall transportation expenses for many Alamedans. Whether it is a block of asphalt that needs repaving due to wear and tear from automobiles or a mile of pipe that needs retrofitting due to sea-level rise, even a slightly denser city can reduce its infrastructure costs per person to meet new and existing challenges during this resource-constrained decade.

- b. Seaplane Lagoon. Permit uses that promote pedestrian vitality and are oriented to the Seaplane Lagoon, such as a ferry terminal, marinas, viewing platforms, fishing piers, and areas reserved for kayaks and other non-motorized boats. Include "short-duration stop" facilities that support stopping, gathering and viewing with places to sit, interpretive kiosks, integrated water features, public art, and access to the water.
- c. DePave Park. On the western shore of the Lagoon, support development of "DePave Park" to be consistent with the Public Trust and sensitive to the neighboring Alameda Nature Reserve.
- **d. Conservation.** Educate users and enforce restrictions to Breakwater Island and install signs about the sensitivity of the protected bird and mammal species.

LU-19

Alameda Point Main Street Neighborhood Mixed-Use District.

Consistent with the Main Street Specific Plan, provide a variety of housing types and a mix of residential densities with complementary business uses, neighborhood-serving retail, urban agriculture and park uses. (See also Policy HE-10).

Actions:

- a. Mixed-Use. Promote a mixed-use and mixed-income residential neighborhood with parks and community serving businesses and institutions, child care and family child care homes, supportive housing, assisted living, community gardens, urban farms and agriculture, compatible specialty manufacturing and light industrial uses, life science companies, and community services that complement and support the sub-district and Alameda as a whole.
- **b. Walkable.** Promote a walkable, transit friendly neighborhood with safe streets, common open space areas and greenways, and pedestrian and bicycle friendly development.
- c. Alameda Point Collaborative. Support development of a new residential campus for the Alameda Point Collaborative (APC), Building Futures for Women and Children, and Operation Dignity (collectively referred to as the "Collaborating Partners").
- d. NAS Alameda Historic District. Preserve the character defining features of the NAS Alameda Historic District Residential Subarea. Preserve the "Big White" single family homes, and consider the preservation of the Admiral's House for community and/or City use.

Alameda Point Enterprise Sub-District. Support the development of the Enterprise District for employment and business uses, including office, research and development, bio-technology and high tech manufacturing and sales, light and heavy industrial, maritime, community serving and destination retail, and similar and compatible uses.

Actions:

- a. Vibrant Employment District. Support the creation of a pedestrian, bicycle, and transit supportive business environment with high quality, well designed buildings within walking distance of transit, services, restaurants, public waterfront open spaces, and residential areas.
- b. Support and Protect Job Growth. Encourage and facilitate job growth and limit intrusion of uses that would limit or constrain future use of these lands for productive and successful employment and business use.
- **c.** Pacific Avenue. Support the development of Pacific Avenue as an iconic landscaped boulevard with separated bike paths and pedestrian routes.
- d. Residential Uses. Ensure that residential uses are directed to those areas within the district that will not result in limitations or impacts on the ability of research and development, bio-technology, high tech manufacturing, heavy industrial, manufacturing, or distribution businesses to effectively operate in the area.

LU-21

Alameda Point Adaptive Reuse Sub-District. Support the development of the Adaptive Reuse District for employment and business uses, including office, research and development, bio-technology and high tech manufacturing and sales, light and heavy industrial, maritime, commercial, community serving and destination retail, work/live, and other uses that support reinvestment in the existing buildings and infrastructure within the NAS Alameda Historic District.

- a. Preservation of the NAS Alameda Historic District.
 Support and promote a pedestrian, bicycle, and
 transit supportive urban environment that is
 compatible with the character-defining features of
 the NAS Alameda Historic District.
- **b.** Investment Opportunities. Allow for a wide range of investment opportunities within the district to encourage private reinvestment in the NAS Alameda Historic District.
- c. Significant Places. Encourage the creation of a range of cultural and civic places through the development or adaptive reuse of key civic structures, including libraries, churches, plazas, public art, or other major landmarks to provide a sense of place and unique character.



Alameda Nature Reserve. Provide for parks, recreation, trails, and large-scale public assembly and event areas consistent with the Public Trust Exchange Agreement. (See also Policies CC-29, OS-5, OS-12, and OS-17).

Actions:

- **a. Public Access.** Support maximum public access, use and enjoyment of these lands, and the protection of natural habitat and wildlife. Provide a variety of public open space and compatible uses, such as museums and concessions in a manner that ensures the protection of the natural environment.
- **b.** Limited Use. Limit uses to public recreation and maritime oriented commercial uses in this sub-district. Provide seasonal public access to the Nature Reserve area.
- **c.** Alameda Nature Reserve. Support the development of the Nature Reserve and Government sub-district for wildlife habitat to preserve and protect the natural habitat in this area and protect endangered species and other wildlife and plant life that inhabit, make use of, or are permanently established within this area.
- **d. Marine Conservation Area.** Consider establishment of a Marine Conservation Area within the submerged lands at the entrance of the Seaplane Lagoon.

36 ADOPTED NOVEMBER 30, 2021

Northern Waterfront Mixed-Use Area. Create a vibrant mixed-use, pedestrian-friendly, transit-oriented neighborhood with a variety of uses that are compatible with the waterfront location. (See also Policy HE-10).

Actions:

- **a. Waterfront Access.** Expand public shoreline access by redeveloping vacant and underutilized waterfront property with public open space and a mix of uses and extending the Cross Alameda Trail and the Bay Trail through the Northern Waterfront.
- **b. View Corridors.** Preserve views of the water and Oakland from existing and planned roadways and public rights of way.
- c. Waterfront Mixed-Use. To support a lively waterfront and a pedestrian friendly environment, provide for a mix of uses and open space adjacent to the waterfront including a mix of multi-family residential, neighborhood-serving commercial, office, marine, and waterfront commercial recreation, boat repair, maintenance and storage, dry boat storage and hoists, waterfront restaurants and related amenities.
- **d. Public Launching and Water Shuttle Facilities.** Support waterborne forms of transportation and water based recreation by providing public docks at Alameda Landing at 5th Street, Marina Village, Alaska Basin at Encinal Terminals, Grand Street Boat Ramp, and Alameda Marina.
- e. Maritime and Tidelands Uses. Promote and support water and maritime related job and business opportunities.
- **f. Historic Resources.** Preserve the unique historical, cultural, and architectural assets within the area and utilize those assets in the creation of a new, vibrant mixed-use district.
- **g. Del Monte Warehouse and Alaska Packers Building.** Preserve the Del Monte Warehouse Building consistent with the Secretary of the Interior's Standards for Rehabilitation and its City Monument designation, and preserve the Alaska Packers building for maritime and tidelands compliant uses.
- h. Encinal Terminals. Redevelop the vacant property with a mix of uses to create a lively waterfront development with residential, retail and recreational commercial, restaurant and visitor serving, and maritime uses. Ensure the provision of an accessible, safe and well-designed public shoreline promenade around the perimeter of the site adjacent to the Alaska Basin and Fortman Marinas that connects to trail systems. Consider a reconfiguration of the Encinal Tidelands to allow public ownership of the privately held submerged lands and waterfront lands to better provide for public waterfront access and enjoyment and future maritime use.
- i. Infrastructure Funding. Require all new development to fund a fair proportion of the costs of extending Clement Street from Sherman to Grand and upgrade storm sewer and wastewater facilities to serve all future development within the Northern Waterfront area.

ADOPTED NOVEMBER 30, 2021





GOAL 4: DESIGN

Promote sustainable, high-quality, accessible city design.

POLICIES:

LU-24

Universal Design. Continue to promote and require universal design in new construction and rehabilitation to protect the public health, accessibility, and safety of all regardless of ability and ensure equal access to the built environment. (See also Policy HE-4).

Actions:

- **a. Principles.** Incorporate universal design principles at every level of planning and design to ensure an inclusive and healthy built environment.
- **b.** Awareness. Promote and raise awareness about the importance of universal design and building an environment that works for everyone.
- c. Universal Design Regulations. Conduct annual reviews of the City's Universal Design Ordinance to ensure that current best practices of the built and external environment are being used and that implementation is successful in meeting the diverse needs of Alamedans regardless of ability without undue constraints on housing development.

LU-25

Historic Preservation. Promote the preservation, protection and restoration of historically or architecturally significant sites, districts and buildings and archaeological resources. (See also Policy HE-7).

Actions:

a. Historical Monuments. Designate additional Historical Monuments (including districts) to recognize areas or sites with significant historic architectural character or cultural history.

- b. City-Owned Buildings. Preserve, maintain and invest in all City-owned buildings and other facilities of architectural, historical or aesthetic merit. Prepare a list of these facilities in consultation with the Historical Advisory Board. Include in the list facilities that need deferred maintenance or rehabilitation or have significant character-defining exterior or interior features that have been altered and should be restored. Give priority to such rehabilitation and restoration in the City's capital improvement program. Prior to sale or rehabilitation of any of these facilities, prepare a historic facilities management plan that establishes procedures for the preservation of character defining features, including interior features and furnishings.
- c. Partnerships. Work in partnership with property owners, the Alameda Unified School District, and non-profit organizations, such as the Alameda Architectural Preservation Society (AAPS), to ensure that the City's historic buildings and landscapes are preserved.
- d. Property Owners. Continue to work to increase owners' and buyers' awareness of the importance of preservation. Provide lists of poorly remodeled older buildings that could be restored to their historic appearance and encourage owners to restore these buildings. Develop financial and design assistance programs for the restoration or preservation of buildings, structures, and sites with architectural, historic or aesthetic merit, such as a Mills Act Program or the Facade Grant Program. Continue to utilize the California Historical Building Code to facilitate rehabilitation of historic buildings. Ensure that the City review process for the alteration and rehabilitation of older buildings does not result in expensive City imposed subjective aesthetic design requirements for property owners.



- e. Study and Prioritize. Continue to evaluate and categorize Alameda's architectural and cultural resources to create an up-to-date inventory of historic resources to guide decision making and the creation of improved historic preservation regulations, which establish different levels of protection based upon the level of historical significance associated with the building or site.
- **f. Demolition Controls.** Maintain demolition controls for historic properties.
- **g.** Alterations. Require that exterior changes to historic buildings be compatible with the building's existing or original architectural design and consistent with the Secretary of Interior Standards.
- h. Archaeological Resources. Preserve important archaeological resources from loss or destruction and require development to include appropriate mitigation to protect the quality and integrity of these resources.

Architectural Design Excellence. Promote high quality architectural design in all new buildings and additions to complement Alameda's existing architectural assets and its historic pedestrian and transit-oriented urban fabric.

Actions:

- a. Diversity. Encourage a broad range of architectural styles, building forms, heights, materials, and colors to enhance Alameda's rich and varied architectural character and create visually interesting architectural landscapes within each neighborhood and district.
- **b. Creativity.** Encourage and support creative architectural design that complements the existing architectural designs in the neighborhood or district.
- c. Harmony. Harmonize the architectural design of new buildings with the architectural character of the surrounding buildings to create a visually appealing architectural landscape.
- d. Human Scale. Promote accessible, human scaled designs that ensure that ground floors are easily accessible and visually interesting from the public right-of-way by facing buildings toward the street, using higher quality materials at the ground floor, providing pedestrian-scaled lighting, and minimizing the extent of blank walls along ground floor elevations with doorways, windows, art, landscaping, or decorative materials.
- e. Regulations and Guidelines. Promote design excellence by ensuring that City development regulations and design guidelines clearly express the intent and support for creative and district sensitive design solutions.

LU-27

Neighborhood Design. Protect, enhance and restore Alameda's diverse neighborhood architecture and landscape design while encouraging design innovation and creativity in new residential buildings and landscapes. (See also Policy HE-15).

Actions:

- a. Architectural and Landscape Design. Require that neighborhood infill development and alterations to existing residential buildings respect and enhance the architectural and landscape design quality of the neighborhood.
- b. City Design Regulations. Develop regulations, standards and guidelines that express the intended and desired form and functional outcomes as opposed to expressing just the prohibited forms to support and encourage innovative design solutions and high quality design.

LU-28

Retail Commercial Design. Require that alterations to existing buildings and all new buildings in community commercial districts be designed to be pedestrian-oriented and harmonious with the architectural design of the surrounding mixed-use district.

- a. Park and Webster Street Design. Continue to support and promote high quality design in the reinvestment in Alameda's "Front Doors" to ensure the continued vibrancy of these unique city Main Streets for commerce, employment, entertainment, and culture.
- b. Contextual Architectural and Landscape Design.
 Require varied building facades that are wellarticulated, visually appealing at the pedestrian
 level, and that utilize architectural and landscape
 design features that respond to the district's existing
 architectural and landscape character.
- c. Pedestrian Orientation. Require building entrances (e.g., the entry to a store, or the lobby entry to an office building) to actively engage and complete the public realm (streets, entry plazas or public open spaces) through such features as building orientation, universal design, build-to and setback lines, facade articulation, ground floor transparency and location of parking.

02



Example of the Park Street retail corridor's historic urban form and character

- d. Sidewalks. Provide generous sidewalks, sidewalk lighting, street trees, bus shelters, bicycle racks, and street furniture to promote pedestrian traffic and encourage strolling, window-shopping and sidewalk dining.
- e. Public Space for Commercial Use. Support the use of public on-street parking spaces and public sidewalks for small parklets, sidewalk dining, and other temporary commercial purposes. Avoid the use of fixed, permanent fences and barricades on public sidewalks that permanently privatize the use of the sidewalk for a single business for 24 hours a day.
- f. Automobile Parking and Access. Minimize the number of curb cuts and driveways crossing public sidewalks. Place off-street parking areas behind or beside buildings, but not between the public right-of-way and the front entrance to the building, whenever possible.
- g. Signs and Utilities. Provide well-designed public signage including street signs, directional signs, gateway markers, street banners, and pedestrian-oriented directories. Reduce visual clutter where possible by grouping sign messages and regulating the number, size and design quality of signs. Utility boxes and trash enclosures should be grouped and screened from public view and should not be located adjacent to the public right-of-way unless no other location is available. Alternatively, visible utility boxes should be made attractive with public art.

Shopping Center Redevelopment. Redevelop existing automobile-oriented, single-use shopping centers with associated large surface parking areas into transit-oriented, mixed-use centers with multi-family housing.

Actions:

- a. Mixed-Use. Maintain commercial, retail and service uses, while allowing upper stories and large open parking lots to be developed for residential, office, and other uses.
- b. Safe, Accessible, and Connected. Ensure that the pedestrian, bicycle, transit and automobile network is safe and convenient for all users and wellintegrated with adjacent off-site networks.
- c. Shared Parking. Minimize the amount of land needed for off-street automobile parking by sharing parking between on-site commercial businesses and on-site residents.
- d. Walkable. Create walkable, pedestrian-scaled blocks, publicly accessible mid-block and alley pedestrian routes where feasible, and sidewalks generously scaled for pedestrian and wheelchair use with ample street trees, public seating areas, pedestrian lighting, and other amenities to create a safe and convenient pedestrian experience and enhance Alameda's network of leafy streets.
- e. Gathering Places. Provide public, open air, gathering places, such as small parks, plazas, outdoor dining opportunities, or other publicly accessible areas to support a mix of residential, commerce, employment, and cultural uses.
- **f.** Architecture. Require building offsets and window and door recesses to create a rich and visually interesting pedestrian level experience.

LU-30

Waterfront Design. Preserve and enhance Alameda's waterfronts as important destinations by maximizing waterfront physical and visual access from adjoining neighborhoods and streets and permitting land uses that complement the waterfront setting. (See also Policies LU-6, OS-8 and HS-22).

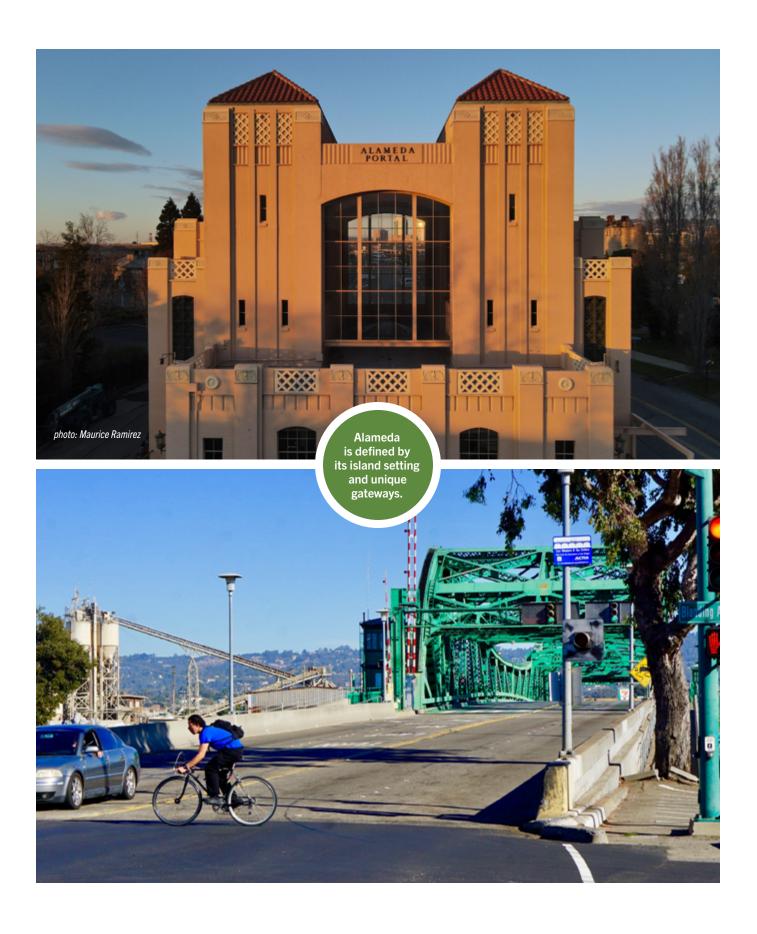
- a. High Quality. Design new parks, open spaces, and waterfront buildings of exemplary quality, highlighting visual and physical connections to the water's edge, preserving waterfront historic resources, and complementing the character of adjacent neighborhoods.
- **b.** *Inclusive.* Design and locate waterfront public spaces and the Bay Trail to be inclusive and welcoming to all.
- **c.** Climate Sensitive. Design public spaces to be microclimate sensitive, allowing for shelter, wind breaks, sun access and shading.
- d. Public and Safe. Ensure that all new waterfront buildings are set back an appropriate distance from the water's edge, such that the public access and Bay Trail feels public, yet also safe for visitors and Bay Trail users.
- e. Public Access and Building Heights. Require a wider public access and separation between the water's edge and the face of the building for taller buildings. Shorter buildings may be closer to the water's edge. Taller buildings should be set back further.
- **f.** Architecture. Require that buildings adjacent to the shoreline provide attractive and varied facades that compliment, but do not mimic, the historic maritime character of the waterfront.



- **g.** Visual and Physical Access. Maximize visual and physical access to the waterfront from inland neighborhoods by maintaining views and access to the water along streets and other public rights-of-way. Ensure that the placement of and access to utilities do not interfere with physical or visual access to the waterfront
- **h. Street Grid.** Extend the street grid so that north-south streets continue to the waterfront and provide gateways to the waterfront, while equitably distributing traffic between existing and new neighborhoods, and supporting people walking and bicycling from inland neighborhoods to the waterfront.
- *i.* Climate Adaptation. Ensure all public investments are designed to accommodate the 50-year sea level rise scenario.

Gateway Design. Enhance the design of the gateways into the city.

- **a. Posey-Webster Tubes**. Improve the entry into Alameda and Webster Street by reducing visual clutter from Caltrans signs and signs on adjacent private property and increasing tree planting in the area.
- **b. Park Street Bridge.** Improve the Park Street entry into Alameda by upgrading the street lighting, street tree canopy, and sidewalk and bike and pedestrian connections on the Park Street side of the bridge. Work with the Downtown Alameda Business Association on its plan for an iconic entry arch near the Park Street Bridge.
- **c. High Street Bridge.** Improve landscape treatments at this entrance in conjunction with needed improvements to the High Street/Fernside Boulevard intersection.



d. Miller-Sweeney Bridge and Fruitvale Rail Bridge. Improve the Fruitvale Avenue entry into Alameda by redesigning Tilden Way to include sidewalks, transit

redesigning Tilden Way to include sidewalks, transit and bicycle facilities, and consistent street tree plantings from Broadway to the Bridge approach. Remove or seismically reinforce the abandoned Fruitvale Rail Bridge to reduce the risk of collapse on the Miller-Sweeney Bridge in the event of a large earthquake. (See also Abandoned Fruitvale Bridge spotlight in Health & Safety Element).

- e. Bay Farm Island Bridge. Ensure that the design for Bridgeview Park enhances the Bay Farm Island Bridge entry onto the Main Island. Maintain and enhance the wooden bike/ped bridge.
- f. Ron Cowan Parkway. Establish the entrance to Alameda from the Oakland International Airport at the intersection of Ron Cowan Parkway and Harbor Bay Parkway as an attractive and visible eastern gateway to Alameda.
- **g. Ferry Terminals.** Develop all of Alameda's ferry terminals as attractive gateways and points of entry into Alameda.

LU-32

Civic Center Design. Create an identifiable Civic Center District that supports a wide variety of civic, institutional, cultural, office, commercial, retail, and residential uses and provides a transition between the Park Street commercial district to the east and the neighborhoods to the west on Santa Clara and Central Avenues.

Actions:

- a. Centerpieces. Preserve the City Hall, Carnegie Library, Veterans Memorial Building and Elks Club buildings as centerpieces of the Civic Center district.
- b. Opportunity Sites. Support and encourage the redevelopment and reuse of the corners opposite City Hall and the Carnegie Building with mixed-use development.

LU-33

Alameda Rail Station Design. Ensure that a future Alameda rail station is designed as an underground, urban station located within the fabric of the existing neighborhood or business district similar to Oakland's 12th Street and 19th Street BART stations. (See also Policies CC-8 and ME-10).

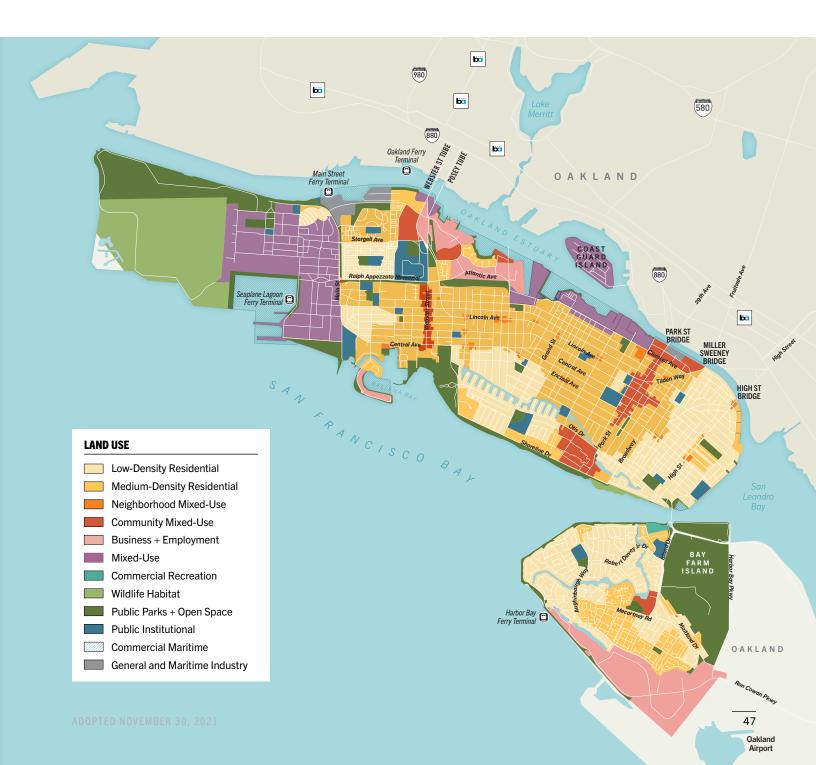
LU-34

Parking Design. To maintain the historic character of Alameda and reduce the impact of automobile parking and trips on the environment and character of Alameda, design parking facilities in a manner that decreases their visibility in the urban environment. (See also Policies CC-9 and ME-21).

- **a. Size.** Minimize the size and amount of land dedicated to off-street parking.
- b. Design. Design parking lots and structures for shared and multiple uses, active parking management, and electric vehicle charging. Surface parking areas should be well landscaped with shade trees to reduce heat island effects from expansive asphalt surfaces and to screen cars from view. Ensure impacts on Alameda's stormwater system are minimized.
- **c.** Location. Place parking inside, below, or behind buildings. Avoid placing parking between the building and the public right of way or the waterfront wherever possible.
- d. Special Needs. Ensure adequate space and facilities for special needs parking, including parking for seniors, the physically impaired and people with limited mobility options.

LAND USE CLASSIFICATIONS AND DIAGRAM

The land use diagram and classifications depict and describe the existing and intended location, distribution, intensity, and physical character and form of the use of land across the city in support of General Plan policies and State of California Government Code requirements. The Alameda Municipal Code (AMC) shall be used to determine the appropriate use and intensity and density of development that may be allowed on a specific parcel of land. The Land Use Classification FAR standards are intended to ensure consistency between the General Plan land use classification and existing zoning ordinance intensity development standards. The Housing Element and AMC establish the maximum allowable residential densities appropriate at different locations within the City to accommodate the regional housing needs allocation.



SPOTLIGHT

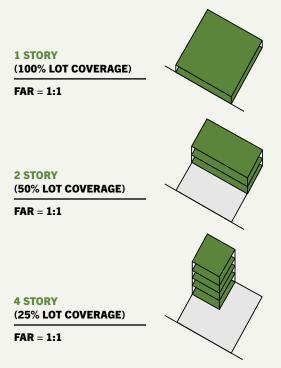
FAR: FLOOR AREA RATIO + DENSITY

FAR (Floor Area Ratio) and Density are two different ways of measuring development capacity and intensity.

FAR is a measure of building floor area (size) relative to parcel size. A 5,000 square foot building on 5,000 square foot lot represents a FAR of 1.0 (1:1). If the building is increased to 10,000 square feet, the FAR increases to 2.0. FAR is a good estimate of building size and development capacity on land, but is not a good measure of building height. A 10,000 square foot building on a 5,000 square foot lot might be 2 stories of 5,000 square feet each or 5 stories of 2,000 square feet each, but both buildings represent an FAR of 2.0.

Density is a measure of number of housing units relative to parcel size. A 30 unit residential building on a one acre parcel represents a density of 30 units per acre. Density is a good way to estimate residential capacity of land, but it is not a good estimate of building size or height. A building with 30 one bedroom units on a one acre parcel is going to be much smaller than a building with 30 three bedroom units on a one acre parcel, but both buildings will represent a density of 30 units per acre.

FLOOR AREA RATIO (FAR)



The General Plan land use classifications, include:

NEIGHBORHOODS

Low-Density Residential: The Low-Density Residential areas support neighborhoods of predominantly single family detached homes with some multi-family residential buildings, accessory dwelling units, child care, shared living, assisted living facilities, residential care facilities, clinics, schools, religious institutions, and home-based businesses. In support of General Plan affordable and fair housing policy goals, the Low Density Residential areas permit a wide variety of housing types, including multifamily housing, a limited range of neighborhood serving uses, and a maximum FAR of 1.0.

Medium-Density Residential: The Medium-Density Residential areas support neighborhoods characterized by a wide variety of housing types, including single family detached homes, attached courtyard homes, multifamily rental buildings, multifamily condominium buildings, shared living, assisted living and residential care facilities. These neighborhoods also include a variety of nonresidential uses, including child care, schools, religious institutions, home-based businesses, medical offices and clinics, office buildings, and personal service businesses. The residential density of buildings in these areas varies from 10 to over 100 units per acre. In support of General Plan affordable and fair housing policy goals, the Medium Density Residential areas permit a wide variety of housing types, including multifamily housing, and a wide variety of complementary commercial and neighborhood serving uses. Maximum FAR is 1.0 in the R-2 Zoning District, 1.2 in the R-3 District, 1.5 in the R-4 District, 2.0 in the R-5 District and 2.4 in the R-6 Zoning District.

MAIN STREETS, STATIONS AND CENTERS

Neighborhood Mixed-Use: These areas, which were originally developed to serve neighborhood stations for the Alameda commuter rail system, are small, compact, pedestrian-oriented "corner store" neighborhood mixed-use districts with commercial and retail uses on the ground floor and multi-family residential and office uses on upper floors. The ratio of floor area to parcel size (FAR) in these areas is typically 0.5 to 2.0. Mixed-use buildings with residential units above ground floor retail in these areas vary from 30 and 90 units per acre. In support of State and General Plan affordable housing, climate change, and transportation policy goals, the Neighborhood Mixed Use areas permit multifamily housing above ground floor commercial and service uses with a maximum FAR of 2.0.

Community Mixed-Use: The Community Mixed-Use areas include the pedestrian and transit-oriented mixed-use districts along the Park and Webster Street "Main Street" corridors and the shopping centers at South Shore, Marina Village, Harbor Bay, and Alameda Landing. In support of State and General Plan policy goals, the Community Mixed Use areas permit a wide range of community serving commercial uses and multifamily housing. Maximum FAR is 3.0 in the CC zoned Main Street districts and 5.0 in the C-2 zoned shopping center districts.

Mixed-Use: These areas at Alameda Point and along the Northern Waterfront are designated Priority Development Areas in the regional sustainable communities plan, Plan Bay Area. These diverse areas include a variety of buildings, with residential densities of 10 to 100 units per acre and FAR of 0.25 to 4.0. The Mixed-Use areas permit a wide variety of housing types, including multifamily housing, a wide variety of commercial and business uses and a maximum FAR of 0.25 to 5.0 depending on the sub district and historic district designations.



STATE LAW, THE CITY CHARTER, AND THE GENERAL PLAN

State law requires that each city adopt a General Plan that facilitates and encourages the development of a variety of types of housing for all income levels, including multi-family housing. Under State law, zoning that prohibits multi-family housing and prohibits residential density of more than 30 units per acre in an urban environment like Alameda, does not support or encourage the development of lower income housing.

Alameda City Charter Article 26 prohibits construction of multi-family housing and residential densities over 21 units per acre. Multi-family housing is more affordable than single family detached housing.

To comply with State law, the Alameda General Plan must identify which areas of the City are appropriate for multi-family housing and residential densities of at least 30 units per acre and areas and sites available to meet the regional housing need.

SPOTLIGHT

HOUSING GROWTH OPPORTUNITY AREAS

To accommodate regional and local housing needs, the General Plan identifies some key housing growth opportunity areas.



Alameda Point is a key housing opportunity site to meet regional and local housing needs.

COMMUNITY MIXED-USE AREA:

- Park Street
- Webster Street
- South Shore Shopping Center
- Alameda Landing Shopping Center

MIXED-USE AREA:

- Alameda Point
- Northern Waterfront
- Coast Guard Island

MEDIUM DENSITY RESIDENTIAL:

- North Housing
- Infill Sites

BUSINESS AND WORK

Business and Employment Areas: The Business and Employment areas support the Harbor Bay Business Park, the Marina Village Business Park, and Ballena Isle, which include office, research and development, bio-technology, food manufacturing, maritime commercial, manufacturing, distribution, hotels and restaurants. The Business and Employment areas permit a wide variety of non-residential business and employment uses with a maximum FAR of 3.0. To preserve lands for employment uses, residential uses are not permitted.

General and Maritime Industry Areas: These waterfront lands along the northern waterfront support waterfront maritime and heavier manufacturing and distribution uses. Residential use is not permitted in these areas. The maximum permissible FAR in these areas is 2.0.

Commercial Maritime Areas: These areas support recreational marinas and commercial boatyards and maritime businesses. Residential use (except "live-aboards") is not permitted in these areas. The maximum permissible FAR is 0.25.

PARKS AND WILDLIFE

Public Parks and Open Space: These areas are to be preserved for public parks, greenways, and recreational facilities including commercial marinas, restaurants, boat rentals and repair businesses. Residential use (except "live-aboards") is not permitted in these areas.

Wildlife Habitat Areas: These areas are preserved for natural resources, wildlife and wildlife habitat. Residential uses are not allowed in these areas. New development in these areas is limited to structures and uses that support preservation of the habitat. Policies support plans, regulations, and investments to restore and/or preserve these areas to support the health and well-being of the community as well as to prepare for the changing climate.

INSTITUTIONS

Public Institutional Use Areas: These areas are primarily for public buildings, grounds, services, schools, colleges, and institutions. New development in these areas is limited to structures and uses that support or enhance the mission of the institutions and a permissible FAR of 2.0.

Commercial Recreation: The Harbor Bay Isle Club provides 10 acres of indoor and outdoor recreational facilities for its members. This category includes open space uses which are not intended for permanent open space for public access or habitat preservation.



BUSINESS GROWTH OPPORTUNITY AREAS

To accommodate business growth, the General Plan identifies these key business growth opportunity areas:



The Harbor Bay Business Park is identified as a key Business Opportunity area

COMMUNITY MIXED-USE AREA:

- Park Street
- Webster Street

MIXED-USE AREA:

- Alameda Point
- Northern Waterfront

BUSINESS + EMPLOYMENT AREAS:

- Harbor Bay Business Park
- Marina Village Business Park

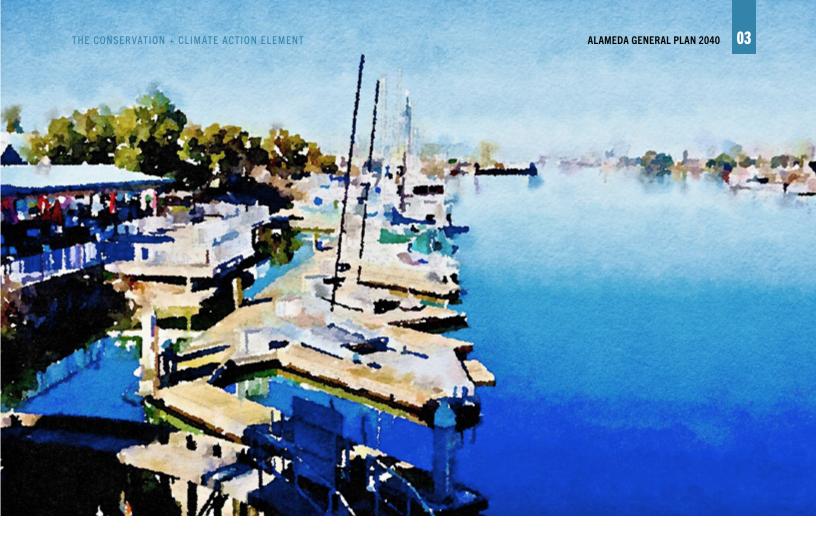
GENERAL + MARITIME INDUSTRY AREAS:

- Alameda Landing Waterfront
- Bay Ship and Yacht

03

CONSERVATION + CLIMATE ACTION ELEMENT

The Conservation and Climate Action Element establishes the City's goals, objectives, policies, and actions necessary to conserve and protect Alameda's natural resources, reduce the community's greenhouse gas emissions and energy use, promote sustainability, and to prepare for and address the wide range of impacts of climate change from rising seas and groundwater, to wildfire smoke, disease and pandemics.



THE GOALS OF THE CONSERVATION AND CLIMATE ACTION ELEMENT ARE TO:

GOAL 1

GOAL 2

GOAL 3

GOAL 4



EMPOWER

Empower community action, partnership and leadership to address local and global environmental and climatic emergencies.

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REDUCE

Reduce the community's greenhouse gas emissions which are contributing to global warming, climate change, and environmental and social impacts.

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PREPARE

Prepare the community to adapt to the disruptions and impacts of climate change, including but not limited to rising sea and groundwater levels, increasingly severe storms and flooding, more frequent heat events, hazardous air quality days, and power outages.



PROTECT

Protect and conserve
Alameda's natural
resources and recognize
their intrinsic importance
in responding to climate
change and fostering
a healthy environment
that sustains people,
neighborhoods and the
unique natural resources
of the island.

ADOPTED NOVEMBER 30, 2021 53



CLIMATE GLOSSARY

Astronomic Tides: Tides are the result of the gravity of the sun and the moon pulling on the water. Tide tables predict these astronomic tide levels. Our tides in Alameda generally fluctuate from 0 feet to + 7 feet, with "king tides" ranging an additional foot below or above that.

Carbon Neutral/Net-Zero Emissions: An activity or entity that sequesters at least as much carbon as it emits.

Climate Change: A change in the usual weather found in a place. This can stress people, wildlife, plants and places as they try to adapt to these weather changes and their downstream impacts, which in much of California include a significant increase in the risk of drought, flooding and fires.

Environmental Justice: Ensuring that the health impacts of environmental hazards are not disproportionately impacting lowincome, vulnerable, and marginalized communities.

Greenhouse Gas Emissions (GHG): A type of air-born molecule that traps heat from the sun, contributing to the overall warming of the planet. These particles trap radiation like a greenhouse, hence the name. Methane and carbon dioxide (CO2) are among the most commonly discussed greenhouse gases.

Groundwater Rise: The rise in levels of underground water driven in large part from Sea Level Rise applying upward pressure. This is a significant source of local flooding, impacting homes and other important low-lying infrastructure.

The Hundred Year Flood: When a rare high water level has about a 1 in 100 chance of happening in any one year, we call it a 100 year flood. This doesn't mean we are safe for 100 years, it means we have a small but real chance (a 1 in a 100 chance, or 1%chance) every year that this could occur. Houston, Texas recently experienced violent storms and two 500 year floods in a row, demonstrating how what used to be a 500-year flood, for example, is becoming more and more frequent with climate change.

King Tide: The highest tides that consistently happen a few times per year when the moon and sun's gravity align to have the greatest pull on the sea, raising the tide levels several inches to a foot above average high tide levels.

Local Flooding: Local flooding can happen anywhere due to violent rainstorms or inadequate drainage, not just in areas subject to coastal flooding.

Low Carbon: An activity or entity that emits significantly fewer greenhouse gas emissions compared to its peers. A bus, for example, is a low carbon transportation mode when compared to a car.

MTCO2e (Metric Tons of Carbon Dioxide Equivalent): The most common way to measure greenhouse gas emissions by comparing the 'greenhouse effect' of particles to that of carbon dioxide. For example, methane has a roughly 25 times stronger greenhouse effect than carbon dioxide on a 100-year time scale so 1 metric ton of methane = \sim 25MTCO2e.

Resilience: The capacity of individuals, communities and systems to survive, adapt, and grow in the face of stress and shocks, and even transform when conditions require it.

Sea Level Rise (SLR): The increase in average sea levels, mostly due to rising temperatures and melting ice around the world.

Sequestration: Removing air-born pollution like carbon dioxide from the air.

Storm-related events: A storm event where changes in wind, barometric pressure, waves and precipitation combine to raise the water level of the Bay and cause flooding. A 50-year storm, for example, is projected to occur just once every 50 years (or a 2% chance of occurring in any given year), which for Alameda, would result in a 3 foot increase in the water level of the Bay during that event.

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INTRODUCTION TO CONSERVATION + CLIMATE ACTION ELEMENT

Alameda's unique island geography and natural setting supports a high quality of life for Alameda residents and a natural habitat for important fish and wildlife. These natural resources and healthy environment are key contributors to Alameda's identity and sense of place. The island setting is also uniquely vulnerable to changes in the environment. As worldwide temperatures and sea levels rise, Alameda residents and businesses will be increasingly impacted by flooding, sewer back-ups, road closures, power outages, hazardous air quality days, and periods of intense heat.

In 2019, the City Council joined a number of other American cities and declared a climate state of emergency in response to the growing threat of climate change. The City Council found that as an island city, Alameda faces an existential crisis from sea and groundwater level rise and must act as a global and regional leader by transitioning to an ecologically, socially and economically regenerative economy. In doing so, the City Council established a citywide goal of becoming a net zero emissions community as quickly as possible and reduce emissions by 50% below 2005 levels by 2030. To achieve these ambitious but necessary goals, Alameda's reliance on fossil fuels to support our current way of life must change.

The City of Alameda must respond to the climate emergency with policies and specific actions that reduce greenhouse gas emissions while preparing to protect Alameda from the consequences of global warming, rising sea levels and rising groundwater levels. Specific actions must also be taken by all Alameda residents and businesses, if the community of Alameda is to be successful in reducing its greenhouse gas emissions to prepare for climate change. Action is needed on all fronts.

This General Plan element includes a policy framework that is designed to preserve Alameda's high quality of life and unique natural setting and resources for future generations. The General Plan reinforces and complements the Climate Action and Resiliency Plan (CARP) which contains specific plans, programs, and actions needed to address the threats of climate change.

ADOPTED NOVEMBER 30, 2021 55



SPOTLIGHT

SEA LEVEL RISE

Alameda is a community with a uniquely beautiful and environmentally sensitive setting in the center of the San Francisco Bay. This unique waterfront community, its natural resources, and the infrastructure necessary to make it safe, healthy, and habitable are also uniquely vulnerable to environmental change. With almost half of its land area 6 feet or less above the current high tide line and ground water just a few feet below, rising sea levels and rising ground water levels threaten to overwhelm our waterfront open spaces and habitat areas, our roadways, storm water, and sewer systems, and the seawalls, embankments, and shoreline barriers that were constructed to make it possible to live on the delicate peninsula and islands that we call Alameda, California.

The San Francisco Bay rose 8 inches in the 20th century, and it is projected to continue rising for the foreseeable future. Today, a severe storm (storms that occur every 50 years or so) will cause a storm surge in sea level of about 36 inches above the 8 inches it has already risen. Due to global warming and the continued generation of greenhouse gases locally and worldwide, by 2060-2070, Alameda must prepare for the slim but dramatic possibility of high tides being about 36 inches higher than today. As a result, groundwater levels will also rise, meaning that homes, businesses, infrastructure and natural habitat areas everywhere on the island will be impacted, whether on the shoreline or inland. Even 6 inches of water in the house can be devastating — ruining floors, wallboard, furniture, cabinets, heating/cooling and electrical equipment, and anything stored on the floor.

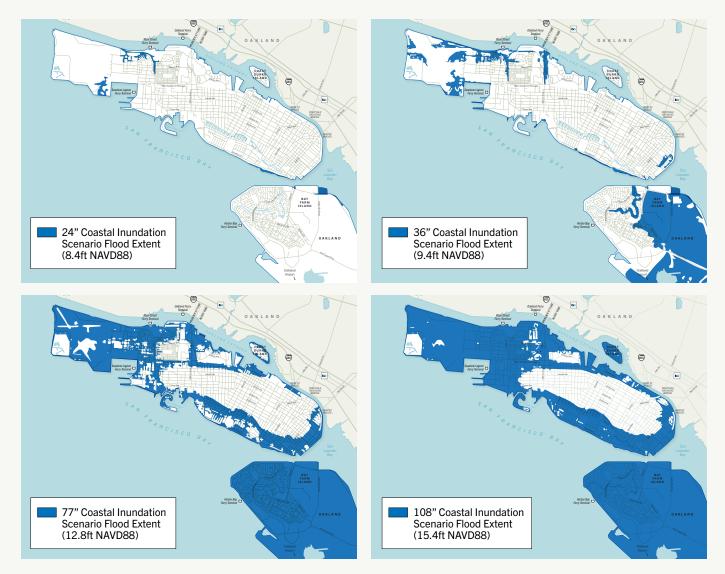


FIGURE 3.1: COASTAL INUNDATION SCENARIOS



GOAL 1: EMPOWER

Empower community action, partnership and leadership to address local and global environmental and climatic emergencies.

POLICIES:

CC-1

Community Action. Empower local community members and leaders to participate, plan, and implement the changes in both individual and collective behavior and actions that are needed to address the climate crisis. (See also Policies LU-1, ME-1, and HS-4).

Actions:

- a. Outreach and Education. Continue to provide planning and educational opportunities that support proactive participation and collaboration by all segments of Alameda's population at the start of processes, with a particular focus on those who will be most impacted by the effects of climate change, such as low income individuals, seniors, youth, people of color, people experiencing homelessness, tribes and indigenous peoples, individuals with disabilities, and socio-economically disadvantaged individuals.
- b. Community Organizations. Continue to partner on climate action initiatives with all interested community groups.
- **c.** Community Capacity Building. Enhance the ability of community members, particularly those in under-served and/or under-represented groups to develop the relationships, knowledge, and skills to effectively participate in planning for, and responding to the climate crisis.
- **d. Climate-Solution Academy.** Consider opportunities to create a Climate Solution Academy at Alameda Point for the purpose of creating an international gathering place and training center for emerging climate-solution technology to be publicly showcased, tested, demonstrated, and funded.

CC-2

Social Vulnerability. Prioritize the needs of frontline communities when prioritizing public investments and improvements to address climate change. (See also Policies LU-1, ME-2 and the Spotlight "What is an equitable and inclusive city?" in Chapter 1).

Actions:

- **a. Equity.** Ensure opportunities for leadership and actions to benefit Alameda's low-income individuals, seniors, youth, people of color, gender, sexual orientation, people experiencing homelessness, individuals with disabilities, and socio-economically disadvantaged communities from environmental and climate change impacts.
- **b. Environmental Justice.** Ensure the equitable treatment and full involvement of all people when considering actions to reduce the adverse impacts of climate change on residents regardless of age, culture, ethnicity, gender, sexual orientation, race, socioeconomic status, or geographic location. Prioritize actions that will reverse historic policies of racial discrimination and exclusion.
- **c. Assessments.** Utilize Alameda's Social Vulnerability Assessment in the Climate Action and Resiliency Plan or similar tool to identify neighborhoods and specific groups with high levels of social vulnerability in order to prioritize locations for action and improvements.

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SPOTLIGHT

SB 375

The Sustainable Communities Act, also known as SB 375 and signed into State law in 2008 recognizes how significant local and regional land use planning is for reducing transportation related greenhouse gas emission and climate change.

THE GOALS OF THE LAW ARE TO:



SUPPORT

Support the state's climate goals to reduce emissions.



REQUIRE

Require regional "Sustainable Communities Strategies" that coordinate local and regional land use and transportation planning.



PROMOTE

Promote healthier, more sustainable and equitable communities.

This state program recognizes that regional land use planning is critical for reducing transportation emissions.

CC-3

Coordinated Regional and Local Planning. Maintain consistency between local and regional plans to reduce greenhouse gas emissions regionally and locally. (See also Policies LU-14, ME-15, HS-3, HS-16 and HS-63).

- **a. City Government Leadership.** Promote climate friendly policies, standards, practices, technologies, and purchasing in all City facilities and operations.
- b. State and Regional Programs. Support and participate in state and regional efforts to address climate change through greenhouse gas emission reduction, affordable housing, transportation system improvements, waste reduction, and increased housing supply near job centers and existing regional transportation infrastructure.
- c. State and Regional Funding. Advocate for and support state and regional efforts to provide funding for greenhouse gas reduction, transportation improvements, affordable housing, and climate change adaptation at the local level.
- d. Sustainable Communities Strategy. Maintain consistency between the City's General Plan, Climate Adaptation and Hazard Mitigation Plan, and Municipal Code and the regional Sustainable Communities Strategy.
- **e. Documentation and Open Data.** Share data in machine-readable formats along with other lessons learned from responding to the climate crisis.

Net Zero Greenhouse Gas Emissions. Take actions to make Alameda a net zero GHG community. (See also Policies CC-13 and ME-22).

Actions:

- a. Partnerships. Continue to partner on greenhouse gas emission reduction and adaptation strategies with other agencies, including but not limited to, Caltrans, AC Transit, Bay Conservation and Development Commission, Water Emergency Transit Agency, East Bay Regional Park District, Port of Oakland, East Bay Municipal Utility District, Pacific Gas & Electric, and the US Department of Veterans Affairs.
- b. Alameda Climate Action and Resiliency Plan Annual Review and Funding Priorities. Implement and update as necessary Alameda's Climate Action and Resiliency Plan (CARP) to reduce GHG emissions to 50 percent below 2005 levels by 2030 and achieve net zero GHG emissions as soon as possible. Implement adaptation strategies to address sea level and ground water rise, storm surges, inland stormwater system flooding, drought, extreme heat, and unhealthy wildfire smoke.
- **c. Annual Review.** Annually review and re-evaluate programs, projects, and annual budget for climate action measures and evolving climatic and public health threats, such as groundwater rise, wildfire smoke events, and global pandemics.
- d. 100% Renewable Energy Goal. Support powering Alameda with 100% renewable energy by promoting the generation, transmission and use of a range of renewable energy sources such as solar, wind power and waste to meet current and future demand. Support Alameda Municipal Power's efforts to provide power from 100% clean, non-fossil fuel sources to all residential and commercial users in Alameda.
- e. On-Island Generation. Support development of on-island solar power generation and on-island wind power with appropriately sized generation, storage, and microgrid distribution infrastructure to be able to provide power for a range of uses, including essential functions. Permit renewable energy generation facilities by right in zones with compatible uses and remove financial disincentives associated with the installation of clean energy generation and storage equipment.
- f. Local Climate Impact Mitigations. Require any carbon neutral goals and initiatives to reduce or sequester greenhouse gas emissions locally and not use taxpayer money to purchase carbon credits from outside the City of Alameda.

CC-5

Clean Energy Infrastructure. Actively support and advocate for improvements to the regional and local electric power infrastructure to reduce its vulnerability to high winds and other climatic conditions. (See also Policy HS-31).

Action:

a. Undergrounding Utilities. Install utilities underground, while also protecting existing underground utilities from groundwater, to increase resilience of the electric grid, reduce conflicts with street trees and contribute to enhancing neighborhood character so long as they plan for rising groundwater.

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GOAL 2: REDUCE

Reduce the community's greenhouse gas emissions which are contributing to global warming, climate change, and environmental and social impacts.

POLICIES:

CC-6

Climate-Friendly Vehicles and Equipment. Reduce transportation greenhouse gas emissions by promoting, and when appropriate, requiring the use of low and zero emission vehicles and equipment and supporting the use of micro-mobility devices to reduce energy use and carbon emissions from personal vehicles. (See also Policies ME-14 and ME-21).

Actions:

- a. EV Charging. Support the increase in supply of publicly accessible electric vehicle charging stations in Alameda.
- b. New Development. Require electric vehicle charging stations in all new development.
- **c.** *Permitting.* Streamline local permitting for hydrogen fueling and electric vehicle charging infrastructure.
- **d.** City Fleet Vehicles and Equipment. Replace public fleet vehicles and other equipment (such as leaf blowers, water heating and HVAC systems) with clean energy powered vehicles and equipment.
- e. Buses. Encourage AC Transit to continue its efforts to replace diesel buses with clean zero emission buses.
- f. Ferries. Encourage WETA to replace diesel ferries with low or zero emission ferries.
- g. EV and Micromobility Action Plan. Partner with Alameda Municipal Power to prepare and adopt an Electric Vehicle Plan that provides a path forward for increased EV and micromobility adoption in Alameda with a focus on renters and low-income residents, increasing charging availability on City owned lots and in multifamily housing, enhancing community awareness, and expanding incentives and rebates for the purchase of a range of EVs, including micromobility devices, and for the installation of chargers.

CC-7

Climate-Friendly Active Modes of Transportation. Reduce greenhouse gas emissions from transportation by improving the local roadway network to support all mobility choices while specifically encouraging walking and bicycling and prioritizing improvements that both reduce greenhouse gas emissions and support General Plan policies that facilitate transit-oriented housing opportunities, pedestrian friendly business districts, and improved transportation choices. (See also Policies LU-3, ME-8, ME-14 and ME-23).

Actions:

- **a.** Active Transportation Plans. Maintain, regularly update and implement bicycle and pedestrian improvement plans identified in the Mobility Element of the General Plan, the Transportation Choices Plan and the Active Transportation Plan.
- **b. Prioritize Safety.** Promote the creation of a safe environment for bicycling and walking by establishing a goal of zero annual fatalities and severe injuries for bicyclists and pedestrians using Alameda's roadway network.

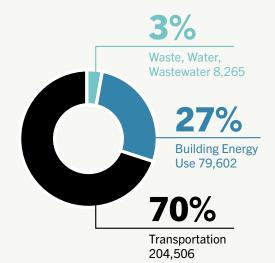
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GREENHOUSE GAS EMISSIONS INVENTORY

In 2020, approximately seventy percent (70%) of Alameda's greenhouse gas emissions came from cars and trucks. Approximately thirty percent (30%) of Alameda's greenhouse gas emissions came from the heating and cooling of our homes and the operation of businesses. To reduce our greenhouse gas emissions, climate friendly modes of transportation, such as walking, bicycling, buses, ferries, scooters, and water shuttles must replace modes of transportation which rely on fossil fuel powered, personal automobiles and trucks. Electricity must replace natural gas and other fossil fuel powered energy sources. To reduce our greenhouse gas emissions, electric vehicles, electric hot water heaters and furnaces, and other electric appliances must replace natural gas and other fossil fuel powered vehicles, appliances, hot water heaters, furnaces, and other appliances. Alameda Municipal Power's commitment to 100 percent clean electricity sets the stage for significant reductions in GHG emissions citywide.



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- c. Complete Streets. Ensure that all streets are designed to provide a safe and convenient environment for all modes, including bicyclists, people using mobility devices such as wheelchairs or walkers, and pedestrians. Adequately maintain sidewalk conditions to avoid tripping hazards.
- d. Safe Routes to School. Increase walking and biking to school by developing and improving safe routes to schools and out-of-school programs.
- e. Mobility for All. Prioritize roadway network improvements that increase mobility and equitable access for all residents, especially low-income individuals, youth, seniors, individuals with disabilities, and other vulnerable residents.
- f. Connectivity and Inclusiveness. Connect neighborhoods and major destinations such as parks, open spaces, civic facilities, employment centers, retail and recreation areas with pedestrian and bicycle infrastructure. Prohibit sound walls, gates and other barriers that separate neighborhoods and decrease physical and visual connectivity throughout the city.
- g. Access to the Shoreline. Expand and improve pedestrian and bicycle access to the waterfront and recreational facilities throughout Alameda.
- **h.** Access to Oakland. Improve connections for all modes, especially transit, bicycle and pedestrian connections to Oakland.
- i. West Alameda to Jack London Square Bicycle and Pedestrian Bridge. Continue to work with Oakland, Caltrans, the Alameda County Transportation Commission, the State of California, and the US Coast Guard to design, fund, and construct a bike and pedestrian bridge from West Alameda to Jack London Square in Oakland.

Transit Use. Reduce automobile pollution and greenhouse gas emissions by increasing transit use. (See also Policy ME-16).

- a. Partnerships. Collaborate and partner with AC Transit, Water Emergency Transportation Authority (WETA), BART, community groups, and employers to provide expanded and more convenient transit services throughout the community as well as to downtown Oakland, San Francisco, and the BART system.
- **b. Convenience and Frequency.** Work with AC Transit to provide convenient and frequent bus service within a quarter mile of every Alameda residence and business during normal commute hours.
- c. Alameda Easy Pass and/or Free Fare Zone. Work with AC Transit and WETA to develop and fund an "Alameda EasyPass" program that would provide every Alameda resident with a pass for use on any bus or ferry and/or a Free Fare Zone that allows for free rides within Alameda.
- d. Transit Connections. Improve connections between bus transit and water transit facilities and services, such as a cross-town bus service connecting east and west Alameda to the Ferry Terminal services at Alameda Point.
- e. Oakland Connections. Establish water shuttle service to connect commuters, pedestrians and bicyclists to Oakland and reduce the need to use automobiles to cross the estuary.
- f. Transit Priority. Evaluate the creation of signal priority lanes, transit-only lanes, and queue jump lanes to make transit corridors more efficient and effective.
- **g. First and Last Mile Connections.** Improve safety and access for shared and active transportation around major transportation nodes.
- h. Alameda BART. Continue to work with BART to include an Alameda BART station in the design of BART's plan for a second San Francisco Bay crossing connecting Oakland and San Francisco.

Vehicle Sharing. Support and encourage vehicle sharing to reduce the demand for vehicle parking and increase access to mobility. (See also Policy ME-17).

Actions:

- a. Alternative Vehicle Share Programs. Support alternative vehicle share programs, such as bike share, car share, and scooter share programs.
- **b. Carpooling.** Consider transit and carpool lanes and other methods to support and incent the use of shared vehicles.
- c. Carpool Parking. Support the provision of preferential parking spaces for carpool vehicles in public parking lots and within private commercial developments that provide shared vehicle parking to increase mobility and equitable access for all residents.

CC-10

Climate-Friendly, Walkable and Transit-Oriented Development. Reduce reliance on automobile use and reduce vehicle miles traveled by prioritizing walkable, transit-oriented, medium and high density mixed-use development in transit-oriented areas and commercial corridors. (See also Policies LU-15, LU-33, LU-34 and ME-21).

Actions:

- a. Density, FAR and Transit. When zoning property or considering commercial, residential or residential mixed-use projects near transit stops, encourage higher densities and floor-area-ratios to make the most efficient use of land, support public transportation, and minimize vehicle miles traveled.
- b. Parking Requirements. Maintain off-street parking requirements with no minimum requirements and with maximum requirements to limit the amount of onsite parking allowed with each development in order to reduce reliance on the automobile and automobile ownership.

- c. Transportation Demand Management Ordinance.
 - Prepare and adopt a Transportation Demand
 Management Ordinance requiring new development
 to actively address the mobility of new residents and
 employees, including but not limited to contributing
 to annual operations and capital improvements for
 supplemental transit, water shuttle, land based
 shuttle services and improvements to the bicycle and
 pedestrian network.
- d. Pedestrian Only Areas. Create pedestrian-only areas and create periodic pedestrian-only programs, such as the San Francisco Sunday Streets program, in and around transit-oriented development and strategically throughout Alameda.

CC-11

Climate-Friendly Employment Commute Behavior.

Encourage residents to telecommute or work from home to reduce vehicle miles travelled, greenhouse gas emissions, and commute hour congestion. (See also Policies LU-2, LU-13 and HE-4).

- a. Home Occupations. Implement municipal code amendments to allow for a wider variety of "home occupation permit" types in residential zoning districts.
- **b. Support Telecommuting Professionals.** Allow and encourage cafes, restaurants, and similar uses that specifically cater to telecommuting professionals in all zoning districts.
- c. Flexible Home Office Spaces. Allow for and actively encourage the construction of flexible spaces, such as Accessory Units and outdoor spaces to facilitate telecommuting from home in residential zoning districts.
- **d. Promote Work-Live Environments.** Support and encourage "work-live" developments in commercial zoning districts.
- **e. Telecommuting Work Sites.** Encourage and permit remote work sites, telecommuting workplaces, coworking spaces and other shared work locations within Alameda.



BUILDING ELECTRIFICATION BENEFITS



FISCAL RESPONSIBILITY AND INEVITABILITY:

Key regional and state decision-makers, including PG&E, have indicated the desire and intention to go all-electric and eventually discontinue gas service.



EQUITY:

As natural gas costs rise over time, customers will switch to all-electric appliances and homes at faster and faster rates. Coordinating and subsidizing a timely and fair transition for lower-income and more vulnerable residents is critical.



HEALTHY AIR:

According to the Rocky Mountain Institute, children who grow up in buildings with natural gas stoves were 42% more likely to develop asthma.



RESILIENCE:

Buildings that depend on natural gas may have to wait 6 months following severe earthquake events for service to return (compared to up to 1 week with electric appliances).

CC-12

User Fees and Congestion Pricing. Advocate for changes to State law that would allow local jurisdictions to implement programs such as congestion pricing or tolling to actively manage roadway use to reduce vehicle miles traveled and greenhouse gas emissions. (See also Policy ME-19).

Actions:

- **a. Equity.** Ensure that user fees are equitable and consider the impact of costs on lower income or other vulnerable communities and users.
- **b. Revenues.** Utilize congestion management pricing revenues to fund improvements to transit and active transportation modes of travel.

CC-13

Alameda's Building Stock. Reduce greenhouse gas emissions from natural gas combustion and natural gas leaks.

- **a. Existing Buildings.** Prepare and adopt citywide regulations and incentives to encourage owners of existing buildings to convert natural gas appliances to clean electricity.
- **b. New Construction Reach Codes.** Adopt reach codes that eliminate the use of fossil-fuels in all new buildings constructed in Alameda.
- c. Rebate Programs. Support programs that encourage homeowners/commercial building owners to implement electrification retrofits, with an emphasis on Alameda's most vulnerable residents.
- **d. Partner.** Partner with PG&E and other utility companies to plan for the safe transition from natural gas to clean energy alternatives, including removal of infrastructure that pose hazards when not in use.

Energy Efficiency and Conservation. Promote efficient use of energy and conservation of available resources in the design, construction, maintenance and operation of public and private facilities, infrastructure and equipment.

Actions:

- a. Weatherization and Energy Efficient Building Renovations.

 Promote investments in building energy efficiency through programs and the streamlining of permitting requirements for energy-efficient building renovations such as weatherization while retaining requirements for new windows to visually match the original windows.
- **b. Public Facilities.** Incorporate renewable energy, electrification, and energy efficiency into public facility capital improvements.
- **c.** Low Carbon Materials. Require or promote the use of low-carbon building materials where available.
- **d. Energy Audits.** Consider requirements for energy audits or energy upgrades at major renovations or time of sale.
- **e.** Incentives. Incent the use of the Living Community Challenge, LEED for Neighborhood Development, or similar third-party certification system to certify climate friendly construction.
- f. Financing. Identify and implement inclusive financing mechanisms that encourage the use of clean electricity for appliances, HVAC, and water heating, in single-family, multifamily, and commercial buildings.
- **g. Solar Panels.** Encourage installation of solar panels and energy storage equipment in existing and new development and on public property such as the former Doolittle Landfill.
- **h. Low Carbon Materials.** Seek low-carbon alternatives to conventional construction materials.
- *i.* Landscapes. Continually update landscape ordinances and guidelines to reduce energy use and GHG emissions from landscape installation, renovation and maintenance.



WHAT IS AN ECO-BLOCK?

By focusing on the block and neighborhood level, Oakland's EcoBlocks helps communities to upgrade their private and public infrastructure to improve resilience and secure their place in a greener, healthier future. These block-level pilot projects help Oakland to demonstrate and evaluate the cost-effectiveness of coordinated action to adapt buildings and communities to climate change. With leadership from UC Berkeley and financial backing from the California Energy Commission, the types of projects undertaken include:



Affordable energy retrofits (e.g., insulation, air sealing, efficient electric appliances)



Water efficiency upgrades (e.g., efficient fixtures & appliances, reuse water/greywater)



Shared electrical assets (e.g., photovoltaic array & battery storage)



Mobility improvements (e.g., shared electric vehicle with curbside charging)

Source: https://ecoblock.berkeley.edu/about/

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Neighborhood Resilience Coordination. Consider piloting building electrification, water conservation and other climate initiatives at a block or neighborhood level to more cost effectively transition to climate friendly energy, water, and resource use.

Actions:

- a. Electrification. Offer blocks or neighborhoods assistance in electrifying their homes through incentives that reflect the savings to taxpayers and ratepayers from being able to remove or shut off the natural gas infrastructure on their block.
- **b. Flooding.** Include tailored planning and support for communities testing various flooding adaptation strategies.
- **c. Priorities.** Prioritize block and neighborhood-driven priorities while selecting a broad range of interventions to test to maximize the City's ability to learn from each pilot project.

CC-16

Water Efficiency and Conservation. Minimize water use in new construction and landscaped areas to make Alameda more resilient to drought and generate less wastewater.

Actions:

- a. Water Efficient Landscape Requirements. Maintain up-to-date water-efficient landscaping regulations and ordinances to reduce water use in both private and public landscapes that include healthy, drought tolerant soils, diverse native plant species, non-invasive drought tolerant/low water use plants, and high-efficiency irrigation systems.
- **b. Water-Efficient Buildings.** Require low-flow fixtures, such as low-flow toilets and faucets in new construction.

- c. Recycled and Reclaimed Water. Promote the production and usage of recycled and reclaimed water (sometimes called "grey water") for potable and non-potable uses.
- d. Pesticides, Herbicides, and Fertilizers. Limit the use of pesticides, herbicides, and fertilizers throughout the city by fostering healthy soil practices, which include organic carbon amendments (e.g. compost and mulch) on all non-turf planting areas.
- **e. Soil Health.** Encourage soil health by promoting and educating the public about the benefits of organic carbon soil amendments that improve water retention in local landscapes.

CC-17

Zero Waste Culture. Create a zero waste culture by implementing the City of Alameda's 2018 Zero Waste Implementation Plan (ZWIP). (See also Policy HS-36).

- a. Zero Waste Awareness. Promote a zero waste culture by developing programs and campaigns that recognize the shared responsibility for each individual to reduce and divert waste from landfill disposal.
- b. Single-Use Plastics. Work toward eliminating single-use plastic products. Promote and require compostable, recyclable and/or reusable products.
- c. Technical Assistance. Provide targeted technical assistance for commercial and multi-family waste generators, which have the greatest opportunity to reduce waste sent to landfill.
- d. Green Waste and Food Recovery. Work with waste management partners to create green waste and food recovery programs and enhance organics management to reduce organic material disposal in landfills and reduce greenhouse gas emissions.

- e. Salvageable Materials. Update the City's construction and demolition debris recycling ordinance to include specific incentives or requirements for deconstruction (rather than demolition) of existing buildings to salvage usable building components (lumber, doors, fireplaces, brick) on homes of a certain age.
- f. CAL Green. Implement CALGreen building code requirements to divert and recycle construction and demolition waste and to use locally-sourced building materials and recycled content building materials, including mulch/compost.
- g. Franchise Agreements. Expand the high diversion franchise agreement with waste management partner(s) related to recycling, organics and construction and demolition waste to further support Alameda in reaching its zero waste goal.
- h. Recycling/Reuse. Support organizations or facilities that help Alameda to recycle or reuse materials. Provide access to recycled materials, such as mulch, for use by Alameda residents and businesses. Make material available to the public.

Building Renovation and Reuse. To reduce construction waste and GHG emissions associated with construction material manufacture and transportation, encourage and facilitate renovation and rehabilitation of existing buildings or relocation of existing structures to a new location instead of demolition and new construction. (See also Policy LU-17).



FOOD WASTE

FOOD WASTE AND OTHER ORGANIC MATERIALS REPRESENT OVER 20% OF CALIFORNIA'S METHANE EMISSIONS,

which are 84 times more potent as a greenhouse gas than carbon dioxide and contribute to conditions like asthma.



Source: https://www.calrecycle.ca.gov/organics/slcp

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GOAL 3: PREPARE

Prepare the community to adapt to the disruptions and impacts of climate change, including but not limited to rising sea and groundwater levels, increasingly severe storms and flooding, more frequent heat events, hazardous air quality days, and power outages.

POLICIES:

CC-19

Sea Level Rise Protection. Reduce the potential for property damage and loss, and loss of natural habitat resulting from sea level rise. (See also Policy HS-15).

Actions:

- a. Flood Protection Maps. Work with regional agencies to regularly update the Climate Action and Resiliency Plan with projected inundation zones for years 2070 and 2100 consistent with the most up to date guidance from the Ocean Protection Council (OPC) for sea level rise in California.
- **b. Contaminated Lands.** Identify and map contaminated lands at risk of inundation from rising ground water and flood inundation and identify actions to mitigate the risk of mobilizing contaminants.
- **c.** Land Planning. Prioritize areas of little or no flood risk for new flood-incompatible development (i.e. housing and commercial development) in new plans or zoning decisions.
- d. Shoreline Habitat and Buffer Lands. Identify, preserve, and restore existing undeveloped areas susceptible to sea level rise to reduce flood risk, enhance biodiversity, and improve water quality. Maintain and restore existing natural features (i.e. marsh, vegetation, sills, etc.) between new development and the shore to allow for marsh or beach migration.
- **e. Conservation Easements.** Consider use of conservation easements to maintain private lands for shoreline and beach migration.
- **f. Nature Based Flood Control Systems.** When designing new flood control systems where none currently exist, prioritize use of nature based flood control systems, such as horizontal levees, marsh lands, or beach restoration.

CC-20

Land Development. Require that new development reduce the potential for property damage, and loss of natural habitat, which results from groundwater and sea level rise. (Also see Policy HS-22).

Actions:

- **a. Assessment.** Require new development proposed in areas of flood risk to assess flood risk and incorporate specific groundwater and sea level rise mitigation strategies.
- **b. Mitigation.** Require new development to incorporate design features to mitigate 50 years of the Ocean Protection Council's Medium-High Risk Aversion, high emissions scenario of sea level rise in addition to a 100 year storm in the initial design and funding mechanisms to pay for later adaptation improvements to address future sea level and groundwater increases above that level. Projects that include new seawalls where none currently exist shall evaluate the off-site impact of the new walls on adjacent and nearby communities.

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c. Nature Based Design. Require new development to incorporate low impact development design strategies and stormwater management systems, such as engineered landscapes, vegetated areas, or cisterns that mimic nature by soaking up and storing water, to manage and protect the quantity and quality of stormwater runoff.

CC-21

Sea Level Rise Plans. Develop neighborhood shoreline sea level rise protection and funding plans to 50 years of the Ocean Protection Council's Medium-High Risk Aversion, high emissions scenario of sea level rise in addition to a 100-year storm in the initial design and funding mechanisms to pay for later adaptation improvements to address future sea level and groundwater increases above that level. (See also Policies HS-18 and HS-22).

CC-22

Critical Public Assets. Implement improvements to move or protect critical public assets threatened by sea level rise or rising groundwater. (See also Policy HS-17).

Actions:

- **a. Stormwater.** Identify funding sources to improve the public stormwater infrastructure and ensure it meets current needs and is prepared for the effects of sea level rise and climate change.
- **b. Transportation.** Work with Caltrans and the Alameda County Transportation Commission to identify funding to adapt the regional and local roadways in Alameda.

CC-23

Rising Groundwater. Prepare for the impacts of rising groundwater levels on private and public property. (See also Policy HS-24).

Actions:

- **a.** Infrastructure and Access. Develop plans and strategies to protect and/or relocate critical infrastructure and maintain access to impacted property.
- **b. Building Codes.** Prepare and adopt revised zoning and building codes to increase resilience of new buildings against the impacts of rising groundwater.
- **c. Annual Review.** Annually monitor groundwater levels and progress on specific strategies to mitigate impacts.



SB 1383:

SHORT-LIVED CLIMATE
POLLUTANTS (SLCP):
ORGANIC WASTE METHANE
EMISSIONS REDUCTIONS
REQUIRES REDUCTION OF ORGANIC
MATERIAL TO LANDFILL BY:



2020

075%

BY:

2025

O20%

OF DISPOSED EDIBLE FOOD SHOULD BE RECOVERED FOR HUMAN CONSUMPTION BY:

2025

ENFORCEMENT & PENALTIES WILL BEGIN JANUARY 1, 2022

SPOTLIGHT

OCEAN PROTECTION COUNCIL'S RECOMMENDED PLANNING SCENARIO

California's Ocean Protection Council, in its March 2018 Sea-Level Rise Guidance, recommends California communities plan for at least 50 years of sea-level rise at the Council's Medium-High Risk Aversion, high emissions scenario and prepare for 100-year events at that level, such as inundation from a 100-year storm surge. For the City of Alameda, this means preparing for approximately 3.5 feet of sea-level rise plus the potential for a 3.5 foot coastal storm surge. It also means considering the increased risks that 3.5 feet of sea-level and groundwater rise, as well as changing weather patterns, would bring for tsunamis, liquefaction and rainfall events. Future updates of this General Plan will explore and consider more fully this 50-year climate scenario and its implications.

Source: https://opc.ca.gov/webmaster/ftp/pdf/agenda_ items/20180314/Item3_Exhibit-A_OPC_SLR_Guidance-rd3.pdf



View of Elsie Roemer Bird Sanctuary on Alameda's south shore

CC-24

Water Retention. Develop and maintain large and small areas to retain water within the city that may serve as areas of "retreat" during large storm events. (See also Policy HS-18).

Actions:

- a. Alameda Nature Reserve. Support use and development of the 550 acre former US Navy airfields and runways as a Nature Reserve and area of wetlands that may serve as flood water retention area during major storm events.
- **b. Corica Park.** Support the use and development of the 330 acre golf complex as a recreation area and lagoon system that currently serves as a flood water retention area during major storm events.
- c. Public Participation. Encourage the public's use of small-scale green infrastructure design standards, guidance, and typical details, as presented in the City's Green Infrastructure Plan, for residential and garden projects.

CC-25

Heat and Wildfire Smoke Emergencies. Create a network of clean air and cooling emergency shelters throughout Alameda. (See also Policy HS-62).

- a. Partnerships. Identify and partner with large HVAC equipped building owners to establish a network of facilities that are able to open to the public during heat waves and smoke events during the day.
- b. Incentives. Incentivize building owners to upgrade or install HVAC systems to provide more safe places during heat waves and times with dangerous air quality levels.
- c. City Facilities. Evaluate options to upgrade or otherwise retrofit HVAC systems and buildings to be able to maintain temperatures below 78 degrees fahrenheit and adequately filter air pollutants when at capacity.





GOAL 4: PROTECT

Protect and conserve Alameda's natural resources and recognize their intrinsic importance in responding to climate change and fostering a healthy environment that sustains people, neighborhoods and the unique natural resources of the island.

POLICIES:

CC-26

Urban Forest. Take actions to maintain and expand the number of trees in Alameda on public and private property to improve public health, reduce pollution, and reduce heat island effects. (See also Policies LU-2, LU-3 and ME-14).

Actions:

- a. Tree Preservation. Continue to require and incent the preservation of large healthy non-invasive trees and vegetation.
- b. New Development and Parking Lots. Require ample tree plantings in new development and related parking lots.
- **c.** Strengthen Tree Replacement Requirement. Strengthen the tree replacement requirement for any protected trees removed due to new development or redevelopment.
- **d. Prioritize Tree Planting.** Invest in tree planting and maintenance, especially in low canopy areas and neighborhoods with under-served or under-represented communities.

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- **e.** Resilient Urban Forest. Support the increase of the tree canopy in Alameda with drought tolerant, shade-producing, fire resistant tree species.
- **f. Public Parks and Lands.** Utilize public parks and public lands, such as Alameda Point, to significantly increase the urban forest.
- **g.** Maintain and Update the City's Master Tree Plan. Ensure an up-to-date, climate friendly Master Tree Plan that selects drought tolerant, shade-producing, fire-resistant tree species adapted to Alameda's changing climate. This plan should include:
 - » Design of new tree wells to allow better infiltration of stormwater;
 - » Promotion of sidewalk gardens and other sidewalk landscaping;
 - » Expansion of greenery in the public right-of-way and removal of impervious surfaces as feasible;
 - » Strategies to reduce conflicts between trees, tree roots, and other public infrastructure such as sidewalks, overhead lines and street infrastructure; and
 - » Identification of funding for both expansion and maintenance of the urban forest.

Habitat and Biological Resource Protection and Restoration. Protect and restore natural habitat in support of biodiversity and protect sensitive biological resources to prepare for climate change. (See also Policies OS-12, OS-18 and HS-37).

Actions:

- **a. Wetlands and Marshlands.** Protect wetlands, seasonal and permanent marshland, riparian habitat and vernal pools from direct and indirect impacts of new and existing development and incorporate those protections in land planning and community design.
- **b. DePave Park and New Wetlands.** Identify areas, such as the plan for DePave Park at Alameda Point, to increase the amount of wetlands and habitat areas in Alameda.
- **c. Submerged Lands.** Protect aquatic habitat areas, including sensitive submerged tidelands areas, mudflats, and eelgrass beds for nurseries and spawning grounds for fish and other aquatic species.
- **d. Permanent Protections.** Preserve habitat in perpetuity through deed restrictions, conservation easement restrictions, or similar legally enforceable instruments.
- e. Operation and Maintenance. Ensure a secure and ongoing funding source for operation and maintenance.
- **f. Eelgrass.** Promote the planting of eelgrass in shallow waters around Alameda to provide habitat, improve water quality, sequester carbon, help absorb wave energy, and prevent erosion.
- **g.** *Information.* Work with local recreation groups to disseminate information regarding the sensitivity of open space habitat areas and the impacts of motorized craft.
- **h. Signs.** Require the posting and maintenance of signs warning boaters and users of motorized craft as they approach wildlife areas.
- i. Waste Diversion. Prevent accumulation of trash in the Bay by collaborating regionally and implementing design solutions throughout Alameda, such as providing clearly-marked, covered wind-sheltered trash and recycling bins, fish hook and line bins, and sharps bins that are emptied regularly. Post signs and launch efforts such as 'Adopt-a-Drain' programs and Marine Alert Systems to empower, educate and raise awareness about the dangers posed from marine waste and other more acute hazards like sewage and oil spills.

72

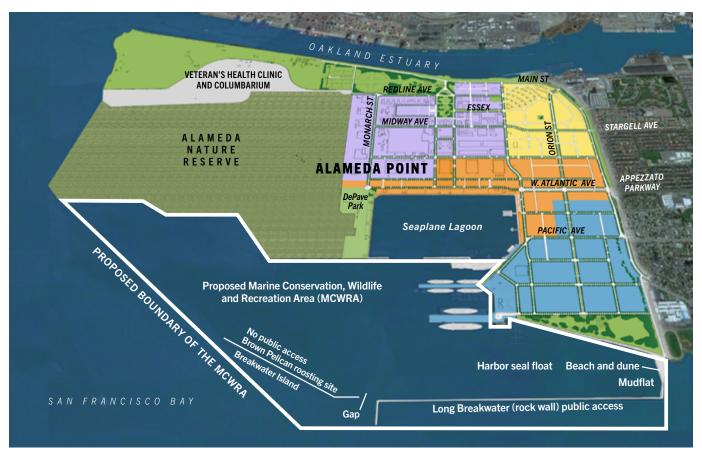


FIGURE 3.2: PROPOSED MARINE CONSERVATION, WILDLIFE AND RECREATION AREA ON THE SOUTH SHORE OF ALAMEDA POINT, REFER TO POLICY CC-29

Alameda Nature Reserve. Work with the US Department of Veterans Affairs, East Bay Regional Park District (EBRPD), and US Fish and Wildlife to maintain and improve the 550 acre Alameda Nature Reserve and seasonal Least Tern Colony. (See also Policy OS-17).

Action:

- **a. Floodplains.** Increase the area of naturally inundated floodplains and the frequency of inundated floodplain habitat. Restore some natural flooding processes and widen riparian vegetation, where feasible, at the Reserve.
- **b. Lighting.** Ensure that all lighting installations at Alameda Point near the Nature Reserve are designed and installed to be fully shielded (full cutoff) to minimize glare and obstructive light and avoid misdirected or excessive illumination.

Alameda Point Marine Conservation, Wildlife and Recreation Area. Support partnerships with regional, state, and federal conservation agencies and volunteer non-governmental organizations to establish and designate a Marine and Wildlife Conservation and Recreation Area to enhance and protect habitat values, ensure safe public access, and foster appreciation of the marine environment south of Alameda Point. (See also Policy OS-22 and Figure 3.2).

Actions:

- **a. Mapping.** Work with the partnership to visually map the sea bed and rock walls to establish a biological inventory and final boundary for the proposed Conservation Area.
- **b. Trash Removal.** Work with the partnership to implement quarterly or semi-annual removal of trash that accumulates on Alameda's rocky shoreline, rock walls and beaches that is detrimental to wildlife.
- **c. Signage.** Work with the partnership to establish signage on Breakwater Island that acknowledges this marine formation as the largest night roosting site for California Brown Pelicans in the San Francisco Bay. Restore the historic light beacon at the western end of the breakwater.
- **d. Oil Spill Boom.** Work with the partnership to establish a dedicated oil spill boom to be stored at Alameda Point to protect this sensitive habitat area in case of an oil spill on the Bay.
- **e. Public Access Structure.** Work with the partnership to construct a safe public access structure on the long rock wall that begins at the beach, which will allow safe fishing and wildlife observation and safe access for trash removal.
- **f. Active Recreation.** Partner with non-motorized recreational watercraft organizations to promote safe and responsible enjoyment of this waterway and an appreciation of the marine natural environment.

CC-30

Clean Marinas. Continue to protect water quality and biological resources by ensuring marina operating standards prevent degradation of water quality and maintain full compliance with environmental regulations.

Action:

a. The Clean Marinas Program requires new marinas to participate in the Clean Marinas Program, which provides a certification program and annual monitoring to ensure the protection of habitat and water quality in proximity to working marinas and boatyards.

CC-31

Crown Memorial State Beach. Work with the East Bay Regional Park District and other appropriate agencies to improve, protect, and preserve Crown Memorial State Beach and the Alameda Beach as habitat as well as recreational resources.

CC-32

Lagoons. Continue to preserve and maintain all lagoons as natural habitat as well as an integral component of the City's green infrastructure network and flood control system.

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Green Infrastructure. Protect San Francisco Bay, San Leandro Bay, and the Alameda Oakland Estuary by promoting, requiring, and constructing green infrastructure that improves stormwater runoff quality, minimizes stormwater impacts on stormwater infrastructure, improves flood management, and increases groundwater recharge. (See also Policy HS-25).

Actions:

- **a. Green Streets and Infrastructure Plan.** Implement Alameda's Green Infrastructure Plan, the purpose of which is to guide the identification, implementation, tracking, and reporting of green infrastructure projects within the City.
- b. Capital Improvement Program (CIP). Include green infrastructure design elements in the initial design stages of all public CIP project planning efforts. Implement Green Stormwater Infrastructure (GI) design standards, guidance, and typical details, as presented in the City's GI Plan, as feasible and appropriate, for public CIPs, Complete Streets street design processes, and the infrastructure management of stormwater.
- **c.** *Open Space.* Utilize and maintain the lagoon systems, public open spaces, wildlife habitat, and other natural areas as integral components of the citywide green infrastructure network.
- **d. Stormwater Runoff.** Promote the reduction of stormwater runoff into the Bay with the increased use of pervious materials, retention basins, bioswales and similar methods.
- **e.** Alameda Countywide Clean Water Program. Continue to remain an active member agency of the Alameda Countywide Clean Water Program (ACCWP) working to control the discharge of pollutants from urban runoff to ensure continued improvement of San Francisco Bay water quality, water quality monitoring, public education, pollution prevention oversight, regional coordination, and the development of technical guidance and pollution prevention tools.
- **f. Municipal Stormwater Permit.** Continue to comply with the requirements of the Municipal Regional Stormwater NPDES Permit (MRP), issued to the City by the California Regional Water Quality Control Board and the San Francisco Bay Region (Regional Water Board), to guide the City's efforts to prevent pollutant discharges and to protect Bay water quality.

New Development. Promote the preservation of on-site natural elements in new development, when feasible, that contribute to the community's native plant and wildlife species value and to aesthetic character.

Actions:

- **a. Preservation of Wetlands.** Require development to preserve existing natural wetland areas and associated transitional riparian and upland buffers.
- **b. Buffers.** Preserve and expand buffers between wildlife habitat and developed areas to ensure the continued viability of the natural habitat and wetlands area, which may include provisions for off-site needs such as upland nesting habitat.
- c. Biological Assessments. Require a biological assessment of any proposed project site where species or the habitat of species defined as endangered, sensitive, or special status by the California Department of Fish and Game or the U.S. Fish and Wildlife Service might be present. Require development to mitigate any unavoidable losses of wetlands or habitat.
- **d. Water Quality.** Require new development to protect the quality of water bodies and natural drainage systems through site design, source controls, storm water treatment, runoff reduction measures, green roofs, best management practices and low impact development and hydromodification strategies.
- **e. Soil Contamination.** Ensure proper remediation of contaminated soils to reduce the risk of current or future exposure from groundwater or sea level rise.
- f. Nesting Bird Survey. Require consultation with a qualified wildlife biologist prior to any construction activities that would remove, trim or otherwise disturb large trees during the general bird breeding season (February 1 through August 31) and implement any necessary no-work buffer zones around identified nests in coordination with the California Department of Fish and Wildlife.
- **g. Bat Survey.** Require consultation with a qualified wildlife biologist prior to any construction activities that would demolish existing buildings or remove large trees, with removal or disturbance of any roosting bats to be performed in coordination with the California Department of Fish and Wildlife.
- h. Aquatic Species and Habitats. Require consultation with the National Marine Fisheries Service and California Department of Fish and Wildlife to identify the need for any permits and to identify appropriate measures to protect aquatic species and habitats during any in-water construction requiring pile driving.
- i. Native Oysters and Eelgrass Beds. Require a pre-construction eelgrass and native oyster survey prior to any construction activities involving any disturbance to the shoreline or adjacent waters in accordance with guidance provided by the National Marine Fisheries Service.
- j. Dredging. Require all dredging activity in waters surrounding Alameda to implement Best Management Practices identified in the Long-term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region (2001) published by the U.S. Army Corps of Engineers in order to avoid impacts on water quality and avoid degradation of aquatic habitat.
- **k. Lighting.** Ensure that all lighting installations are designed and installed to be fully shielded to minimize glare and obstructive light and avoid misdirected or excessive illumination.
- *I.* Rooftop Antennas. Minimize the number of rooftop antennas and other equipment, and co-locate the equipment whenever feasible to reduce risks to wildlife.
- **m. Guy Wires.** Prohibit the use of guy wires to support monopole structures or antennas on buildings, in open areas, and at sports and playing fields and facilities. CC-35

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Paleontological Resources. Protect paleontological resources, such as fossilized bone, teeth, shell, tracks, trails, casts, molds, or impressions, during site grading and construction activities.

Action:

a. Construction. If resources are discovered during construction, halt all ground disturbance within 100 feet of the find until the services of a qualified paleontologist can be retained to identify and evaluate the scientific value of the resource(s) and, if necessary, recommend mitigation measures to document and prevent any significant adverse effects on the resource(s). Significant paleontological resources should be salvaged and deposited in an accredited and permanent scientific institution, such as the University of California Museum of Paleontology.

CC-36

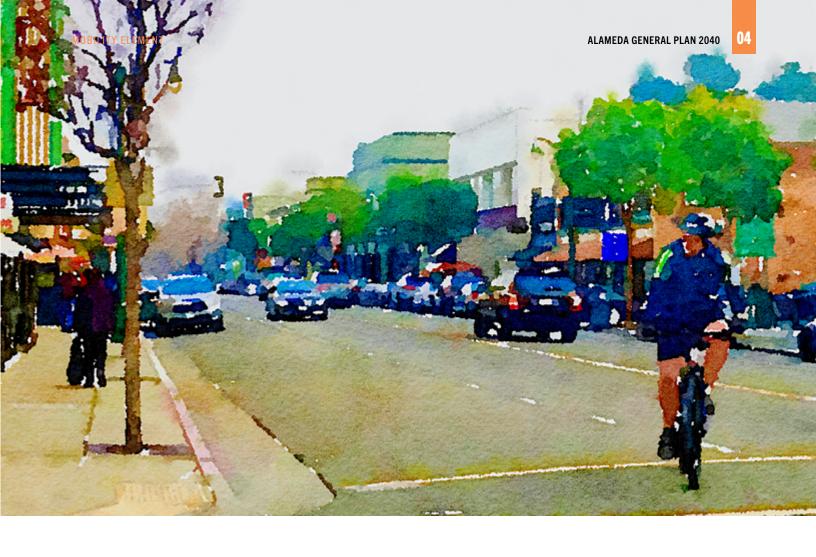
Prehistoric or Historic Cultural Resources. Protect prehistoric or historic cultural resources during construction activities.

Actions:

- a. Discoveries. In the event that prehistoric or historic cultural resources are encountered during excavation and/or grading of the project site, all activity within a 100-foot radius of the find shall be stopped, the City shall be notified, and a qualified archaeologist shall examine the find to evaluate the significance of the encountered resource(s) and, if necessary, recommend mitigation measures to document and prevent any significant adverse effects on the resource(s). The results of any additional archaeological effort required shall be presented in a professional-quality report, to be submitted to the City of Alameda and the Northwest Information Center at Sonoma State University in Rohnert Park.
- **b.** Preservation In Place. In the event that any cultural resources encountered during subsurface disturbance are determined to be historical resources, the project sponsor shall implement preservation in place as the preferred manner of mitigating impacts to buried historic resources.
- c. Tribal Consultation. If any Native American tribal representatives have requested consultation with the City of Alameda regarding general or specific development projects in Alameda, prior to issuance of a grading permit, the City shall notify the tribal representative(s) in writing soliciting their input regarding the protection of tribal cultural resources (TCRs) during project construction in accordance with California Public Resources Code Section 21080.3.2. Mitigation measures to reduce impacts to TCRs shall be developed in coordination with the consulting tribal group. The consultation required by Senate Bill (SB) 18 and Assembly Bill (AB) 52 is considered complete when either the parties agree to measures to mitigate or avoid any significant impact on TCRs, or if one of the parties, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached.
- d. Human Remains. In the event that any human remains are encountered, all ground-disturbing work in the vicinity of the remains shall cease immediately until the coroner of Alameda County has been contacted, in accordance with Section 7050.5 of the California Health and Safety Code. If the coroner determines that the human remains are of Native American origin, the Native American Heritage Commission (NAHC) must be contacted within 24 hours, and the project sponsor shall comply with State laws relating to the disposition of Native American burials, regulated by the NAHC (Pub. Res. Code Sec. 5097 et seq.). No further excavation or disturbance of the site shall occur until the coroner of the County has been informed and has determined that no investigation of the cause of death is required; and if the remains are of Native American origin, the Coroner's Office will notify the NAHC of the find as provided in Public Resources Code Section 5097.98.

O4 MOBILITY ELEMENT

A well-designed, safe, multimodal transportation system that meets the needs of all residents, visitors, and business owners, employees and customers, regardless of income, background, ability, neighborhood, or mode of travel, is essential to being a healthy, equitable and inclusive city and to protecting the environment and responding to the climate crisis.



THE GOALS OF THE MOBILITY ELEMENT ARE:

GOAL 1



EQUITY

Provide for the mobility needs of all Alameda residents, workers, and visitors regardless of income, age, ability, or neighborhood. GOAL 2



SAFETY

Eliminate fatalities and severe injuries on Alameda's streets, sidewalks, crosswalks and trails by 2035. GOAL 3



CHOICES

Expand and improve alternatives to low occupancy automobile trips to incentivize mode shift to more environmentally sustainable modes of transportation while recognizing the diverse needs for mobility.

GOAL 4



SUSTAINABILITY

Reduce the impacts of transportation systems on the environment, and transition to a more resilient transportation system to address the impacts of climate change.

04



SPOTLIGHT

CLIMATE CHANGE AND TRANSPORTATION

Over 70% of Alameda's greenhouse gas emissions are from Alameda's vehicle trips, and over 50% of Alameda's commuters are driving alone in a fossil fuel burning automobile each day to work. For Alameda to achieve its greenhouse gas emission reduction goals, Alameda must transform its transportation system to give residents convenient and safe, climate-friendly transportation choices and alternatives to the single occupant vehicle.

As Alameda works to transform its transportation system to be more efficient, flexible, and safe, Alameda will also need to prepare the transportation system to adapt to the impacts of climate change, including rising seas and groundwater. Redesigning streets and roads to work in concert with the natural ecosystem will reduce the impact of the system on the physical environment and prepare the system for the impacts of climate change.

In September 2019, the Alameda City Council adopted the Climate Action and Resiliency Plan which emphasized the need for mode shift, alternative fuel use, and environmentally sound land use decisions.



MODE SHIFT

Mode shift is increasing the number of trips Alamedans take using low-carbon, low pollution forms of transportation, such as taking the bus, bicycling, or walking, over driving solo in conventional vehicles.



ALTERNATIVE FUEL USE

The second way to reduce transportation emissions is to reduce the carbon emissions from the vehicles we already use. This means driving alternative fuel vehicles such as all-electric, electric-gas hybrid, or hydrogen fuel cell vehicles.



LAND USE

Accommodating growth and housing needs with mixed-use, transit-oriented development, work-live development, allowing home offices and small neighborhood businesses in residential neighborhoods, and supporting telecommuting reduce the need for multiple daily automobile trips, which means less greenhouse gas emissions.

To accommodate a growing population and economy over the next 20 years, the City will expand and improve the transportation system to serve the needs of a growing population, address existing and long term transportation problems and congestion choke points, and address the increasing impacts of climate change. The Mobility Element of the General Plan establishes a policy framework and street classifications to guide the transformation of the city's transportation system to make more efficient use of the existing network of streets and bridges, introduce new ways to cross the estuary by boat or by bridge, increase the frequency and convenience of transit, make walking and biking a safer and more convenient choice for local trips, and embrace and support new modes of transportation. By doing so, Alameda can reduce its greenhouse gas emissions, reduce traffic congestion at well-known choke points and crossings, reduce fatalities and serious injuries, make Alameda's neighborhoods quieter, safer, and more livable, and provide for the mobility needs of all Alamedans, regardless of age, background, ability, income, or neighborhood.

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WHAT MAKES A COMPLETE STREET?

"Complete" streets are streets that are designed to serve not just automobiles, but also pedestrians, bicyclists and public transport users to improve the quality of life for all users by designing streets as "public spaces" which are safe and comfortable, and support high-performance, sustainable transportation networks.

COMPLETE STREETS **INCLUDE THE FOLLOWING:**

PEDESTRIAN-SCALE

Well-lit environments are important

motorists. Pedestrian-scale lighting

environment in terms of both traffic

provides a safer and more secure

for pedestrians, cyclists, and

LIGHTING

safety and crime.

A comprehensive, integrated, and connected mobility network is crucial to improving mobility for all types of users.

CONNECTED NETWORK

STREET FURNITURE AND SIGNAGE

Furnishing the street as well as providing for clear signage improves the experience of a public space and makes it more active and safe. Benches, bicvcle racks, trash bins. bollards, community kiosks, art installations and transit shelters all contribute to an activated street. Traffic signs ensure the safety for all road users - pedestrians, cyclists and motorists.

ACCESSIBILITY FOR ALL

Balanced design to accommodate the needs of pedestrians, cyclists, transit systems and motorists, including innovative solutions for parking and deliveries.

STREETS ARE **ECOSYSTEMS**

Streets should be designed as ecosystems where manmade systems interface with natural systems. From pervious pavements and bioswales that manage storm-water run-off to street trees that provide shade and climate amelioration, greenspaces are critical to the health of the city and for longterm sustainable design.

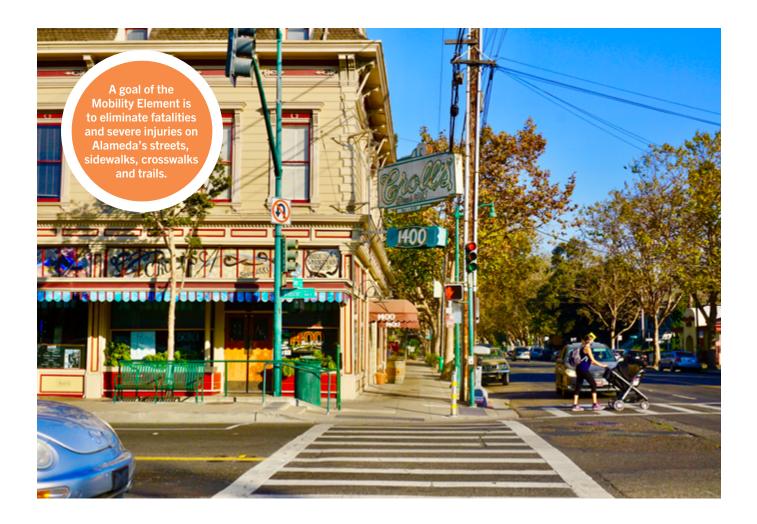
AN ACTIVE STREETSCAPE

A mix of interactive uses such as commercial, retail and food service encourages an active streetscape. A community where people share experiences and interact on a day-to-day basis tends to be a safer community.

WELL-MAINTAINED FACILITIES AND INFRASTRUCTURE

On-going investments and maintenance of the complete street network are critical in preserving and creating active, walkable neighborhoods and a healthier, more equitable and resilient community.

04





GOAL 1: EQUITY

Provide for the mobility needs of all Alameda residents, workers, and visitors regardless of income, age, ability, or neighborhood.

POLICIES:

ME-1

Community Participation. Educate the public on transportation issues and encourage, promote and facilitate active and diverse community participation in the development, evaluation, and prioritization of transportation improvements and investments. (See also Policies LU-1, HE-13, and OS-5).

Action:

a. Public Engagement. Seek out and facilitate input from community members, neighborhood organizations, business associations, interest groups, and transit providers. Ensure inclusion of underserved areas and socially vulnerable communities historically underrepresented in the transportation decision making process.

Equitable and Inclusive Transportation Planning. Create a transportation system that equitably serves all Alamedans. (See also Policies LU-1, HE-13 and HS-6).

Actions:

- a. Equity. Ensure that all neighborhoods are equitably served by the citywide transportation system.
- b. Procedural Justice. Ensure that traffic enforcement is implemented in a fair, respectful, and unbiased manner.
- **c.** Environmental Justice. Ensure the fair treatment and meaningful participation of all people regardless of age, ability, culture, ethnicity, gender, race, socioeconomic status, or geographic location when considering the environmental impacts of transportation facilities and services.

ME-3

Vulnerable Communities. Prioritize the transportation improvements needed to serve the most vulnerable communities, including youth, seniors, those with limited mobility, those with limited income, and historically underserved communities. (See also Policies LU-1 and ME-6).

Actions:

- **a. Engagement.** Evaluate and improve engagement with the most vulnerable communities by meeting people in their neighborhoods and providing translation services or other support when appropriate in order to reach communities often left out of the planning process.
- **b. Safe Path of Travel.** Continue to improve the transportation network to ensure a continuous and safe path of travel throughout the city for youth, seniors, and people with disabilities.
- **c. Equal Access.** Continue to improve the transportation network to ensure that residents with limited income have affordable and convenient access to transportation choices, such as AC Transit bus service and paratransit.
- **d. Costs.** When managing the transportation system through pricing (e.g. long term parking costs, congestion pricing, or other market based approaches to transportation system management), ensure that the pricing structure considers the impact of costs on lower income or other vulnerable communities and users.

ME-4

Public Annual Review. Conduct an annual public review of the performance of the transportation system and adjust transportation investment priorities as necessary to support equity objectives.

Action:

a. Annual Capital Improvement Program Review. Annually review the citywide Capital Improvement Program to prioritize investments in maintenance and improvement of existing facilities as well as the investments in new or expanded plans and programs to ensure that transportation services are being equitably distributed throughout the City.



SPOTLIGHT

WHAT IS VISION ZERO?

Vision Zero is a strategy to eliminate all traffic fatalities and severe injuries, while increasing safe, healthy, equitable mobility for all. First implemented in Sweden in the 1990s, Vision Zero has proved successful across Europe — and it is now gaining momentum in major American cities. The City of Alameda is one of those cities that has committed to Vision Zero.

THE PROBLEM

From 2011 to 2018, 16 people died and 82 suffered severe, life-changing injuries on Alameda's streets, an average of 2 deaths and 10 severe injuries per year. Of the people who died using Alameda streets, two thirds were walking or riding a bicycle; and 75% of the pedestrians who died were 65 years old or older, and 100% were 59 years old or older.

A NEW VISION FOR SAFETY

Vision Zero starts with the belief that everyone has the right to move safely in their communities, and that system designers and policy makers share the responsibility to ensure safe systems. In 2019, the City Council adopted Alameda's Vision Zero Policy which establishes safety as the highest priority in all transportation plans, projects, and decisions with the goal of eliminating fatalities and serious injuries on Alameda streets.

TRADITIONAL (vs)



VISION ZERO

Traffic deaths are inevitable Perfect human behavior Prevent collisions Individual responsibility Saving lives is expensive

Traffic deaths are preventable Integrate human failing in approach Prevent fatal + severe crashes Systems approach Saving lives is not expensive



More information: visionzeronetwork.org



GOAL 2: SAFETY

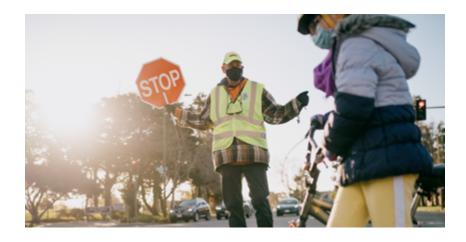
Eliminate fatalities and severe injuries on Alameda's streets, avenues, sidewalks, crosswalks, paths and trails by 2035.

POLICIES:

ME-5

Vision Zero. Maintain and implement Vision Zero as the guiding principle for transportation planning, design of streets and sidewalks, and the maintenance of the public rights-of-way. (See also Policies LU-3, ME-6, ME-7 and HS-5).

- a. Action Plan. Complete, and regularly update, a Plan that summarizes specific changes to policies, practices, enforcement procedures, education efforts, infrastructure improvement priorities, and other action items that will reduce speeding, collisions, and collision severity.
- **b.** Institutional Commitment. Ensure that City staff and officials understand and work to support the City's commitment to Vision Zero; integrate Vision Zero into City driver policies and training; and focus on safety in City vehicle purchases and maintenance.
- c. Community Support. Foster community support and responsibility for the safety of people traveling within Alameda through outreach, communications, and partnerships.
- d. Data. Improve the use, collection, and organization of data to allow for evaluation and reporting that fosters transparency and creates trust with stakeholders and residents.
- e. Annual Report. Prepare an annual report on progress toward the Vision Zero goals, utilizing outcome metrics defined in the Vision Zero Action Plan.



Vulnerable Users. When designing, redesigning or resurfacing streets, provide safe and convenient access for vulnerable users, including children, seniors, people with disabilities, and people walking and bicycling. (See also Policies LU-2, LU-3, ME-5, ME-7, and OS-5).

Actions:

- a. All Ages and Abilities Network. Street design and transportation projects should enable people of all ages to navigate the streets safely and confidently and be supported by amenities such as shade and benches.
- **b. Safety First.** When designing streets, the safest treatments should be considered the default starting point and be degraded only if necessary and after documenting rationale for the approach.
- c. Safe Routes to Schools. Collaborate with parents, schools, the Alameda County Transportation Commission, and AC Transit to identify needed infrastructure, educational and encouragement programs, and enforcement to provide for the safety of students riding the bus, walking and bicycling to school.
- d. Safe School and Day Care Drop Off Zones. Work with Alameda Unified School district, private and charter schools, day care centers and other institutions and businesses requiring drop off areas for children to ensure that drop off zones are well planned and ensure the safety of children and parents walking, bicycling, and driving their children to school.
- e. Safe Crossings. Reduce the number of pedestrian and bicyclist fatalities and the severity of their injuries by minimizing vehicle turning speeds and intersection crossing distances. Limit automobile parking and other visual obstructions within 20 feet of an intersection to maintain sightlines and visibility for automobile drivers. Provide high-visibility crosswalk markings and bulb-outs at regular and frequent intervals on arterial and collector streets.
- f. Construction Zones. Ensure safe and convenient continuity for pedestrians, bicyclists and transit users when construction occurs in the public right-of-way.
- g. Space Priorities. When allocating public right-of-way space, the first consideration shall be for people walking, bicycling, and using transit. Space for on-street parking shall be the lower priority.



THE 25 MILE PER HOUR SPEED LIMIT: WHY DOES IT MATTER?

Automobile speeds on Alameda streets determine the quality of life in Alameda. Automobile speed plays a critical role in the cause and severity of crashes as well as the comfortability, safety and health of Alameda's neighborhoods. Reducing auto speeds and the incidence of speeding not only saves lives, but it also improves the neighborhood and commercial district environment, reduces the need for police enforcement activities, improves walkability, bikeability and the comfort of the street environment, and reduces noise pollution.

There is a direct correlation between higher speeds, crash risk, and the severity of injuries. The Institute of Transportation Engineers found that a pedestrian hit by an automobile traveling at between 20 and 25 miles an hour has a 95% chance of surviving the collision without dying. If the vehicle is traveling at 30 miles an hour, the chances for surviving death for the pedestrian drops to 70%. If the automobile is going 40 miles per hour or more, the pedestrian has a less than 15% chance of not being killed.



04



ROUNDABOUTS

Modern roundabouts are a type of intersection characterized by a generally circular shape, yield control on entry, and features that create a low-speed environment while traveling counterclockwise around a central island. Mini-roundabouts or "traffic circles" are a type of roundabout characterized by a small diameter and traversable islands, and are best suited to environments where speeds are already low and environmental constraints would preclude the use of a larger roundabout with a raised central island.

Modern roundabouts have been demonstrated to provide a number of safety, operational, and other benefits when compared to other types of intersections:

Safety: Roundabouts can reduce the number of crashes in an intersection by 35% and injury crashes by 76%. Due to the reduction of vehicle speeds, roundabouts can improve pedestrian and bicyclist safety.

Speeding: Roundabouts can reduce illegal speeding.

Travel Time: A roundabout avoids the need for a stop light. Especially during non-peak times, roundabouts can reduce delays for automobiles caused by traffic signals.

Lower Maintenance Costs: A roundabout has lower operating and maintenance costs than a traffic signal

Environment: Roundabouts provide environmental benefits such as reduced noise impacts, air quality impacts and fuel consumption by reducing vehicle delay and the number and duration of stops compared with signalized or all-way stop-controlled intersections.

Aesthetics: The central island and splitter islands offer the opportunity to provide attractive entries or centerpieces to communities through use of landscaping, monuments and art.

Source: Federal Highway Administration, Roundabouts: An Informational Guide

ME-7

Safe Streets. Reduce collisions between road users resulting in severe injuries and fatalities on Alameda streets by reducing automobile speeds. (See also Policies LU-2, LU-3, ME-5, ME-6, HS-5 and HS-6).

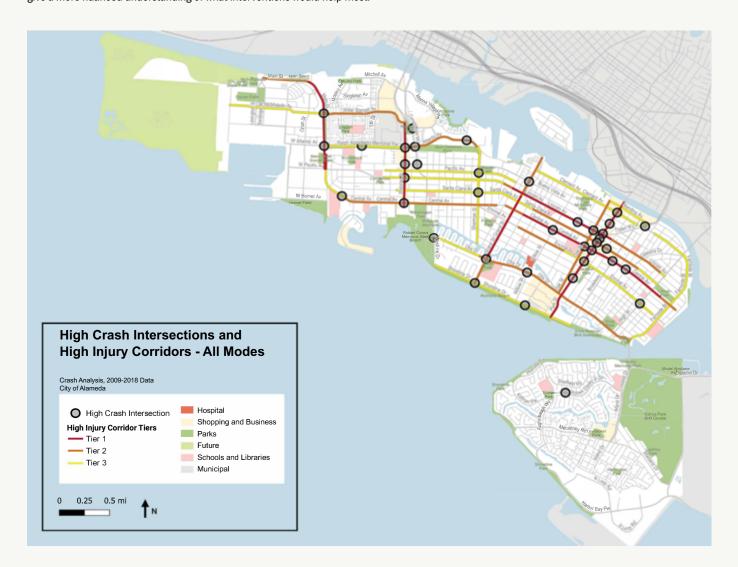
- **a. 25 MPH.** Reduce the severity of injuries and reduce fatalities by designing streets for a maximum vehicle speed of 25 miles per hour or less, except for Harbor Bay Parkway and Doolittle Drive.
- **b.** High Injury Corridors and Intersections. Prioritize high injury corridors and intersections for transportation infrastructure maintenance, project development, and implementation.
- c. Neighborhood Slow Streets. Identify and maintain a network of traffic-calmed neighborhood slow streets to reduce automobile volumes and speeds to create a network of neighborhood streets that are safe for people of all ages, abilities and travel preferences.
- d. Traffic Calming Measures. Improve livability and safety for residents and enhance mobility for people walking, biking and using personal mobility devices by reducing automobile speeds in neighborhood and school areas with the use of traffic calming techniques such as mini-roundabouts, speed tables and cushions, chicanes, sidewalk bulb-outs, and public art. Safety shall be the highest priority when evaluating traffic calming measures.
- **e.** Roundabouts. Increase the use of roundabouts at intersections to improve the safety and lower maintenance costs compared to traffic signals.
- f. Traffic Signal Timing. Coordinate the timing of traffic lights and the design of intersections on key corridors to promote safe, efficient, vehicle movements at or below 25 miles per hour and enhance the safety and convenience of people traveling by bus, foot, mobility device, and bicycle.



WHAT IS A HIGH INJURY CORRIDOR?

On average, two people die and about 220 people are injured on roads each year in Alameda. Seventy three percent (73%) of collisions and crashes occur on twenty percent (20%) of Alameda's streets. Those roads with 73% of the collisions and crashes are identified as Alameda High Injury Corridors.

High injury corridor mapping is an important Vision Zero tool, enabling the City to prioritize traffic safety improvements where they are needed most. Alameda's high injury corridor maps identify the streets with the highest crash densities and weight crashes by severity. Crashes that resulted in a fatal or life-altering injury receive a higher weight than other injury crashes. The high injury corridors are broken into three tiers with Tier 1 indicating the streets with the greatest frequency and severity of crashes. The City also maintains high injury corridor maps for all types of crashes together, as well as maps of injury crashes by individual modes: motorist, pedestrian, bicyclist, and motorcyclist. Reviewing the individual mode maps can help give a more nuanced understanding of what interventions would help most.



ADOPTED NOVEMBER 30, 2021

ALAMEDA GENERAL PLAN 2040 MOBILITY ELEMENT

- g. Travel Lane Width. To reduce speeding, limit lane widths to 10 feet on all streets, except on designated truck routes and streets accommodating AC Transit services where 11 foot lanes are preferable. If no parking is present, one foot may be added to the above to provide shy distance from a vertical curb. Where auto traffic volumes are low, space is constrained, or automobile speeds need to be reduced, further reductions in lane widths may be considered. Where necessary to accommodate fire prevention aerial apparatus access, protect or improve public safety at specific locations and/or improve transit efficiency, additional clearance may be provided.
- h. Roadway Widening. Prohibit the widening of existing roadways to create additional automobile travel lanes to accommodate increased automobile traffic volumes, with the exception of increasing transit-exclusive lanes, transit-bicycle exclusive lanes, or non-motorized vehicle lanes, or creating roundabouts.
- i. Intersection Widening. Discourage the widening of existing intersections beyond the width of the approaching roadway except for when necessary to create a single exclusive left turn lane, transit exclusive lanes, or non-motorized vehicle lanes, or for the construction of a roundabout.
- j. Intersection Safety. To improve safety at stopcontrolled or signalized intersections, consider a roundabout design or eliminating right turns on red and adding pedestrian scrambles to existing signals.
- K. Roundabouts and Traffic Circles. When considering modification to an intersection, prioritize roundabouts and traffic circles recognizing that land acquisition needs, operational considerations, or other engineering factors or constraints may result in other intersection solutions on a case-by-case basis.
- *I. Enforcement.* Focus traffic enforcement efforts on high injury corridors and on dangerous moving violations.

ME-8

Roadway Diets. To reduce speeding and collisions on 4-lane roads on high-injury corridors, consider converting the 4-lane road to a 2-lane road with turning lanes, transit lanes, or bicycle lanes. (See also Policies CC-7, CC-8, and Mobility Element Street Classifications).

ME-9

Emergency Response and Disaster Preparedness.

Preserve access for emergency response vehicles to people and property and for evacuation. (See also Policies HS-1, HS-2 and HS-4).

- a. Emergency Response Planning. Include emergency response needs in all transportation planning, the design of new facilities, and modifications to existing facilities. Establish and sign designated evacuation routes, and provide ongoing education and outreach to ensure that Alameda is evacuation ready. Continue to work with AC Transit and WETA to ensure coordinated services in the event of the need for evacuation.
- **b. Outreach.** Educate the community on disaster preparedness using an all-hazard approach to emergency response.
- c. Miller-Sweeney Bridge. Upgrade the Miller-Sweeney Bridge to meet lifeline standards to ensure that the bridge can be used for the movement of supplies, evacuations and emergency vehicles and to support recovery efforts in the event of a major earthquake.
- d. Fruitvale Rail Bridge Hazard. Remove or seismically upgrade the abandoned Fruitvale Rail Bridge which poses a seismic hazard to the city's Miller-Sweeney Bridge. Consider replacing the hazardous structure with crossing for transit, bicycles and pedestrians.



GOAL 3: CHOICES

Expand and improve alternatives to low occupancy automobile trips to incentivize trip planning and mode shift to more environmentally sustainable modes of transportation while recognizing the diverse needs for mobility.

POLICIES:

ME-10

Movement. Provide for the safe and efficient daily movement of people, goods, and services. (See also Policies LU-3, OS-7 and HS-6).

Actions:

- **a.** Complete Streets. Maintain a multimodal system of complete streets and multi-use paths designed for safe access and equal utility for all modes of transportation and users of all ages and abilities.
- b. Best Practices. Rely on up-to-date, forward-looking design guides and manuals as well as countermeasure best practices such as those produced by the Federal Highway Administration and National Association of City Transportation Officials (NACTO) in the design of all transportation projects.
- c. Self-Enforcing Design. Design streets and rights-of-way to support vehicle speeds of 25 miles per hour or less, efficient bus movements and safe bicycle and pedestrian movements, to reduce the need for active enforcement and the risk of bias.
- d. Pilot Projects. Experiment with low cost, easily reversible street design changes, such as temporary "slow streets," weekend street closures, lane restriping, and low cost barriers to test new best practices or community ideas that support safe, multimodal transportation.
- e. Complete Streets. Complete streets shall not be interpreted to prohibit bicycle, pedestrian, and/or transit-only streets that provide direct connections for active transportation and transit users.

ME-11

Commercial Traffic. Work with local business associations and individual businesses to identify and implement transportation improvements to support the local economy, reduce commercial traffic, and improve safety.

Actions:

- **a. Customer Trips.** Use infrastructure and transit improvements to ensure all commercial corridors are connected, accessible and welcoming for customers using all modes of transportation.
- **b. Deliveries.** Provide adequate loading zones and work with businesses to schedule deliveries to facilitate commercial activity while minimizing safety hazards of obstructed rights-of-way.
- **c. Truck Routes.** Maintain a citywide network of clearly-marked truck routes with lanes no wider than 12 feet to provide for efficient movement of materials and products with the least impact on public health, safety and general welfare.



TRANSPORTATION CHOICES PLAN

In 2018, the City Council adopted the Transportation Choices Plan to ensure that the city sustains a high quality of life while accommodating population and employment growth. The plan identifies projects and programs to effectively support shifts to transportation modes that make more efficient use of the existing transportation network, are more equitable, less damaging to the environment, and reduce congestion.

THE PLAN INCLUDES:



Current goals and objectives to allow the City to measure its performance in providing effective travel choices and reducing single occupant vehicle trips.



Quantification of existing and expected future travel characteristics in terms of cross estuary trips and trips within Alameda.



Identification of potential projects and programs that, if implemented, would move the City towards the achievement of the performance goals. These projects and programs have been categorized by their expected performance and by the time frame in which they could reasonably be implemented.



School Traffic. Work with Alameda Unified School District, private and charter schools, parents, and AC Transit to reduce school-related automobile traffic and congestion.

Actions:

- **a. Safety.** Prioritize the actions listed in ME-14 in supporting safe mobility and access to school sites.
- a. Student Drop Offs. Where safety issues are identified and drop-off areas can be accommodated without priortizing drive-to-school trips, consider the use of Drop Off Zones that allow safe pickups and drop offs from vehicles while removing these stopped vehicles from the flow of traffic.

ME-13

Alameda Street Grid. Manage and extend the Alameda street grid to maintain the character of Alameda, reduce traffic, and maximize mobility, access, and safety for all modes of transportation. (See also Policy OS-8).

Actions:

- a. Cross Alameda Trail. Complete the Cross Alameda Trail, the major cross town route for people walking and bicycling, from Seaplane Lagoon to the Miller-Sweeney Bridge.
- b. Bay Trail. Complete the San Francisco Bay Trail along the shoreline and around the perimeter of Alameda with connections to the San Francisco Bay Water Trail. (See Bay Trail spotlight in Open Space Element).
- c. Shoreline to Sea View Bridge. Evaluate the feasibility of connecting the South Shore area to Harbor Bay directly via water shuttle, ferry, or a causeway for pedestrians, bicyclists and micromobility users, reducing trips by 1.5 miles each way.
- d. Central Avenue Safety Improvements. Complete the Central Avenue Safety project to reduce speeding and improve safety for people walking and bicycling from Pacific Avenue/Main Street to Encinal Avenue/Sherman Street.

- e. Mitchell Avenue Extension. Complete the Mitchell Avenue extension from Bette Street to Main Street.
- f. Clement Avenue Extension. Complete the Clement Avenue extension from Sherman Street to Grand Street and from Broadway to Tilden Avenue.
- **g. Tilden Avenue.** Reconfigure Tilden Avenue into a 25 mile per hour, complete street with sidewalks, lowstress bikeways and safe pedestrian crossings.
- h. Rights-of-Way. Utilize former railroad and public rights-of-way for transportation improvements and extensions to the Alameda street grid and pathway network.
- i. Block Sizes. When designing new streets, typical blocks should be between 200 and 400 feet in length to reflect typical, historic, Alameda block sizes.
- j. Grid Management. Allow for portions of the grid to be prioritized for specific modes such as truck routes, bike boulevards, and/or pedestrian pathways.
- **k. Private Roads.** Require that all private roads in new development include public access easements.

ME-14

Active Transportation. Reduce traffic, improve public health, increase transportation equity, reduce greenhouse gas emissions, and air and noise pollution, increase access to transit, enhance quality of life, and improve the efficiency of the transportation system by making Alameda a city where people of all ages and abilities can safely, conveniently, and comfortably walk, bike, and roll to their destinations. (See also Policies LU-2, LU-3, OS-7, OS-8, and CC-7).

- a. Connectivity and Comfort. Develop a well-connected, low-stress, and uncluttered network of pedestrian and bicycle facilities that are comfortable and well-designed for people of all ages and abilities. Seamlessly link the network with Alameda's key destinations such as schools, designated commercial corridors, grocery stores, parks and transit stops.
- **b. Maintenance.** Regularly maintain the active transportation network for safety and comfort, and to ensure current design standards are being met.

S

SPOTLIGHT

WHAT IS ACTIVE TRANSPORTATION?

Active transportation modes are the original modes of transportation that predate the automobile: walking, biking, and wheelchairs. But they also include newer forms, such as skateboards and scooters. Whether new or old, these are the modes of transportation that rely on an excellent citywide network of sidewalks, bicycle lanes, and trails. They are also the types of transportation that have the least impact to our natural environment (little to no greenhouse gas emissions) and they are the modes of transportation that support a healthy life style.

The Active Transportation Plan is a plan for improvements to support people walking or rolling, which includes travel by bicycle, wheelchair, scooter, skateboard, or other similar wheeled vehicles allowed in bicycle lanes, paths or sidewalks. The Plan builds on plans and projects from the previous decade, with a focus on safety, user comfort, connectivity, and equity and mode share.



Photo: Maurice Ramirez

- c. Community Awareness and Education. Foster a strong culture of walking and bicycling through public outreach efforts such as community-wide campaigns, community-implemented street art and placemaking (such as painted bulbouts and intersections), and ongoing education in collaboration with community organizations and neighborhood groups.
- **d. Equity.** Ensure that comfortable bicycle and pedestrian facilities and programs are implemented equitably throughout the city.
- **e. Safety.** Increase the safety of all people bicycling and walking by improving the design of streets and active transportation facilities, educating the public, and enforcing traffic laws.
- **f. Design for Context.** Develop a pedestrian-specific street typology to apply to all city streets, based on street function and characteristics, and match recommended design treatments to each typology.
- **g. Supportive, Barrier-Free-Infrastructure.** Ensure that bicycle and pedestrian infrastructure is barrier-free, well-signed and well-supplied with short and long-term bicycle parking.
- h. Low-stress Bikeways. Prioritize low-stress biking infrastructure such as separated bicycle lanes, bicycle boulevards (Slow Streets) and bike trails, which is comfortable for the majority of the community. Build these facilities with enough width to comfortably and safely support all people and devices into the future, including cargo bikes, electric bikes, and scooters, all operating at different speeds. Provide separated bicycle lanes instead of unprotected, standard bicycle lanes, unless not feasible, and optimize the experience of bicyclists on bike boulevards by minimizing stop signs along these routes by opting for mini-roundabouts or similar treatments that allow bicyclists to travel unimpeded while slowing vehicle speeds.
- i. Separate Pathways. Where there is adequate space and existing or anticipated future demand, build separate facilities for people walking and bicycling, given their different speeds.
- *j.* **Safer Intersections.** Use hardscape treatments and traffic signals to separate people walking and bicycling from motorists at busy and larger intersections.
- k. Legislative Agenda. Support legislation to improve safety for people walking and biking, improve and accelerate the implementation of Caltrans' complete streets policies, allow the thoughtful deployment of automated speed cameras, and subsidize the cost of e-bikes, transit, and other modes of travel in support of mode shift.

Estuary Crossings. Work with Oakland, Alameda County, Caltrans, the Alameda County Transportation Commission, the State of California, the US Coast Guard, and other local, regional and federal partners to improve and ensure the maintenance and safe operations of Alameda's existing bridges and tubes, and improve bicycle, pedestrian and transit access between Alameda and Oakland.

Actions:

- a. Pedestrian and Bicycle Access to Oakland. Upgrade walking and bicycling facilities on the Park Street Bridge, Miller-Sweeney Bridge, and High Street Bridge to current best practice standards.
- b. West Alameda to Oakland Bicycle and Pedestrian Bridge.
 Prioritize work with Oakland, Caltrans, the Alameda County
 Transportation Commission, the State of California, the US
 Coast Guard, and other relevant agencies to design, fund,
 construct and operate a bicycle and pedestrian bridge from
 West Alameda to Oakland in order to increase bicycle and
 pedestrian access across the estuary.
- c. Transit Crossings. Prioritize work with Caltrans and the City of Oakland to improve and optimize transit access across the estuary in the short term by creating queue jumps lanes and commute hour transit lanes to the approach of the crossings. In the long term, begin planning for the eventual replacement of the Webster and Posey Tubes, which provides an opportunity to design a crossing that better serves transit.
- d. Water Service Shuttles. Work with the Alameda Transportation Management Association, WETA, and Oakland stakeholders to develop and support water shuttles or provide short-hop service between Oakland and Alameda.
- e. BART to West Alameda. Work with BART and other key stakeholders to extend BART to West Alameda as part of the second transbay tube between Oakland and San Francisco.
- f. Water Bikeshare Service. Explore a water bikeshare system for transportation across the estuary and along the Alameda waterfront.
- **g.** Harbor Bay Connections. Consider options, including a water shuttle and bridge improvements, to improve transportation options between Harbor Bay and the Main Island.



WEST ALAMEDA BICYCLE + PEDESTRIAN BRIDGE

In 2021, Alameda, Oakland, the Alameda County, Transportation Commission (ACTC), and a wide coalition of stakeholders and agencies are working together on a plan to build a pedestrian and bicycle bridge to enable pedestrians and bicyclists to safely and easily cross the 1,000 foot distance between West Alameda and Jack London Square.

As Alameda, Oakland, and the State of California work to reduce greenhouse gas emissions generated by automobile trips, create a more equitable and sustainable transportation system, and reduce the environmental justice impacts of the Webster and Posey tubes on the vulnerable communities in Downtown Oakland and West Alameda, the West Alameda-Oakland Bicycle and Pedestrian Bridge represents a major step forward. ACTC studies completed in 2020 demonstrated that the new bridge, if built, would be used by an estimated 5,000 to 6,000 bicyclists and pedestrians each weekday, resulting in 40,000 fewer auto trips each week on Oakland Chinatown and Jack London streets and along Webster Street and Constitution in West Alameda.



Sketch of a potential bicycle and pedestrian bridge on the West End



Few cyclists and pedestrians choose to navigate the tube, their only estuary crossing on the West End.

Transit. Improve mobility and reduce greenhouse gas emissions and air and noise pollution by making Alameda a city where all people have access to safe, reliable, high quality transit. (See also Policy CC-8).

Actions:

- **a. Partnerships.** Collaborate and partner with AC Transit, the Water Emergency Transit Agency (WETA), BART, the Alameda Transportation Management Associations, community groups, and employers to provide expanded and more convenient transit services throughout the city as well as to downtown Oakland, San Francisco, and the BART system.
- **b. Travel Time.** Incentivize transit use by making on- and off-Island transit ride times faster than or comparable to on- and off-Island drive times through traffic management and parking management.
- c. Bus Transit. Work with AC Transit to provide convenient and frequent bus service within a 1/4 mile of every Alameda resident and business and establish a regular cross Alameda service connecting east Alameda and Park Street to west Alameda and the Alameda Point Ferry Terminals and key retail destinations.
- **d. Land Use.** Coordinate transit investments with land use decisions in order to maximize returns, enhance livability, and minimize congestion. Adopt development regulations that discourage automobile ownership in new projects.
- **e. Water Transit.** Expand ferry services from Alameda to San Francisco, the Peninsula, Oakland (short-hop), and other locations throughout the Bay Area. Consider the use of hovercraft and other water-based transportation technologies to connect the south shore of Alameda to employment centers and other destinations that cannot be served by traditional ferries.
- f. BART to Alameda. Continue to work with BART to include an Alameda BART station in the design of BART's plan for a second San Francisco Bay crossing connecting Oakland and San Francisco.
- **g.** Transit Connections. Improve connections between bus transit and water transit facilities and services, such as a cross-town bus service connecting east and west Alameda to the Ferry Terminal services at Alameda Point.
- h. Citywide "Transit Pass." Work with AC Transit, WETA and MTC to develop a multi-modal fare payment system that could be used to develop an "Alameda Transit Pass" program that would provide every Alameda resident and employee with a pass for use on any bus or ferry at any time.
- *i.* Bus Transit Priority Infrastructure. Provide transit priority lanes, transit signal priority, and transit queue jump lanes, and make traffic signal upgrades including coordination, to make transit faster and more reliable.
- j. Bus Stops. Ensure consistency with AC Transit Multimodal Design Guidelines and move bus stops to the far side of the intersection to increase safety and improve bus speeds and reliability and work to make all bus stops fully ADA-accessible to accommodate those with mobility challenges.
- **k. Committees.** Maintain committees such as the Interagency Liaison Committee that promote partnerships with transit service providers to improve transit services for Alameda.
- I. Special Event Shuttles. Provide, encourage or require on-island shuttle services for special events, festivals or venues.

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Shared Mobility. Promote shared mobility devices programs such as bicycle share, car share, and electric scooter share programs that reduce the need for an automobile trip. (See also Policy CC-9).

Actions:

- **a.** Car Share. Continue to partner with car share companies to provide car share services in all Alameda neighborhoods.
- b. Scooter Share. Develop a permitting system to all electric scooter companies to operate in Alameda.
- **c. Bike Share.** Continue to explore options and partners to provide bicycle, e-bike and water bike share services in Alameda.

ME-18

New Mobility and New Technology Infrastructure. Plan for new mobility technologies or customizable on-demand services, such as autonomous cars, taxis, shuttles, buses and delivery vehicles; bicycle, water bicycle, scooter, and car share; and other micromobility and new mobility transportation options.

Actions:

- **a.** *Infrastructure.* Require the installation of communications and fiber infrastructure in excavation projects in the public right-of-way wherever and whenever feasible to facilitate interconnected traffic signals, improved transportation operations, new mobility options, and digital inclusion.
- **b. Safety.** Ensure and plan for consumer protections and the City's emergency response when developing shared, automated and other new mobility models.
- **c. Service Quality.** Prioritize improvements to improve the efficiency of transit, parking management, and data collection for the purposes of transportation management and improvement.

ME-19

Active Management and Monitoring. Actively manage the use of public streets, parking areas, and transportation services through signal timing, design changes, and user fees to increase efficiency and capacity, decrease traffic, and to reduce collisions, congestion, greenhouse gas emissions, and vehicle miles traveled. (See also Policy CC-12).

- a. Signal Operations. Implement multimodal, equitable, and reliable traffic signal operations.
- **b. State and Regional Roadways.** Work with the State of California, Alameda County and the City of Oakland to ensure that any future user fees or congestion pricing on state and regional roadways, such as the Webster and Posey Tubes and the Estuary Bridges, are designed to reduce greenhouse gas emissions while being sensitive to the needs of lower income residents.
- **c. Systemwide Monitoring.** Provide comprehensive citywide monitoring of the transportation system for all modes to be included in the Annual Report on Transportation.



SPOTLIGHT

TRANSPORTATION DEMAND MANAGEMENT (TDM)

Transportation Demand Management (TDM) strategies are actions and programs to better manage the demands on the transportation system.

THESE INCLUDE:



CONSTRUCTING HIGH OCCUPANCY VEHICLE LANES



AUTOMATED SIGNAL TECHNOLOGY AND BUS PRIORITY SIGNALS



CONGESTION PRICING



PARKING PRICING



CURB MANAGEMENT



PEDESTRIAN AND BICYCLE IMPROVEMENTS



TELECOMMUTING



OTHER STRATEGIES TO MAKE USE OF THE SYSTEM MORE EFFICIENT

ME-20

New Development. Require that new development support citywide traffic reduction, greenhouse gas reduction, and sustainable transportation. (See also Policies LU-16 and CC-10).

Actions:

- a. Transportation Demand Management Ordinance.
 - Prepare and adopt a Transportation Demand Management Ordinance requiring new development to actively meet the mobility needs of residents and employees, including but not limited to contributing to annual operations and capital improvements for supplemental transit, water shuttle, land-based shuttle services and improvements to the bicycle and pedestrian network.
- b. Alameda Transportation Management Association. Expand the Alameda Transportation Management Association to provide transportation services to all new developments, existing business associations and neighborhoods to improve citywide transportation service options and reduce greenhouse gas emissions and vehicle miles traveled in Alameda.

ME-21

Parking and Curbside Management. Manage parking and allocate curb space to reduce congestion, reduce vehicle miles traveled, and increase safety. (See also Policies LU-34 and ME-3.d).

- a. Availability. Manage parking pricing to ensure that approximately 15% of public parking is always available, allowing people to find parking faster and reducing emissions and potential conflicts with pedestrians while drivers circle for parking.
- **b.** Long-Term Parking. Ensure that long-term parking pricing is equitable and considers the impact of the fees on lower income or other vulnerable users.
- c. On-street Metered Parking and Surface Lots. Utilize parking pricing to encourage one or two open spots on every block, and a few open spots in city-owned surface lots to minimize circling for parking.



- **d. Ferry Terminal Parking Management.** Establish daily parking fees at all of Alameda's regional ferry terminals. Periodically adjust pricing to ensure that some spaces are always available for riders on later boats and to ensure that those with the least resources are eligible for reduced cost parking passes.
- e. Disability Parking. Provide an appropriate supply of well-located, accessible parking for mobility impaired drivers.
- **f. Carpool Parking.** Incentivize and reward carpooling by providing carpool-only parking spaces in locations throughout Alameda such as major employment sites and at ferry terminals and transit transfer locations.
- g. Bicycle and Scooter Parking. Provide plentiful and secure parking for micromobility devices (i.e. scooters and bicycles), and space off of sidewalks to allow pedestrians to walk freely and ensure that there is plenty of parking available at all times so families and larger groups can be confident they can find enough bicycle parking. Where possible, include valet programs funded by parking fees at transportation transfer points, such as the ferry terminals and along commercial transit corridors.
- **h. Shared Off-Street Parking.** Revise development requirements and ordinances to facilitate shared and well-managed off street parking facilities.
- i. Neighborhood Parking Permits. Continue to provide opportunities for neighborhood preferential parking permits.



GOAL 4: SUSTAINABILITY

Reduce the impacts of transportation systems on the environment and transition to a more resilient transportation system to address the impacts of climate change.

POLICIES:

ME-22

Environmentally Friendly Transportation. Reduce traffic, air and noise pollution, and greenhouse gas emissions by reducing reliance on the single occupancy vehicle and reducing vehicle miles traveled (VMT). (See also Policies CC-6, CC-7, CC-8, CC-9, CC-10, and CC-11).

Actions:

- **a.** Climate-Friendly Vehicles and Equipment. Reduce pollution and transportation greenhouse gas emissions by promoting, and when appropriate, requiring the use of low and zero emission vehicles and equipment and taking action to support use of micro mobility devices to reduce energy use and carbon emissions from personal vehicles.
- **b. Clean Transit.** Support and encourage use of hydrogen fuel cells and other alternative energy sources for transit vehicles.
- **c.** Climate-Friendly Modes of Transportation. Prioritize the use of quiestest, cleanest and greenest modes of travel and reduce greenhouse gas emissions from transportation by improving the local roadway network to support environmentally sensitive mobility choices such as transit, walking and bicycling.
- d. Transit Use. Reduce automobile greenhouse gas emissions by increasing transit use.
- **e.** Vehicle Sharing and Carpooling. Reduce automobile greenhouse gas emissions by supporting and encouraging vehicle sharing and carpooling.
- f. Climate-Friendly, Walkable and Transit-Oriented Development. Reduce reliance on automobile use and reduce vehicle miles traveled by requiring walkable, transit-oriented, medium and higher-density mixed-use development in transit-rich areas and along commercial corridors such as much of Park Street, Webster Street and Otis Drive, as well as near ferry terminals.
- **g.** Climate-Friendly Employment Commute Behavior. To reduce vehicle miles travelled, greenhouse gas emissions, and commute hour congestion, make Alameda an ideal location to work from home in the Bay Area by collaborating with employers, Island businesses, and improving work-from-home infrastructure.

ME-23

Resilient Transportation Infrastructure. Plan, develop and construct transportation infrastructure that is resilient to the impacts of climate change and reduces greenhouse gas emissions. (See also Policies LU-14, CC-3, CC-7, and HS-21).

Actions:

a. Adaptation Strategies. Implement improvements to protect critical transportation facilities threatened by sealevel rise or rising groundwater.

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- **b. Nature Based Design.** Require the use of bioswales, rain gardens, trees, coastal habitat restoration, and pervious materials as an integral part of an adaptation solution to enhance water quality, ecosystem health and the visual appearance of the facility, and to reduce greenhouse gas emissions, the urban heat island effect and the flooding impacts on the stormwater system and the San Francisco Bay.
- **c.** Lifecycle Emissions. Reduce lifecycle emissions by considering variables such as asphalt compaction effect on vehicle fuel efficiency and transportation project design specifications.

Regional Partners. Work with Caltrans, the East Bay Regional Park District (EBRPD), the Alameda County Transportation Commission and the City and Port of Oakland to prepare regional facilities for the impacts of climate change and identify funding to adapt the regional and local roadways in Alameda. (See also Policies OS-2 and HS-16).

Actions:

- **a. Webster and Posey Tubes and the Northern Waterfront.** Work with Caltrans and northern waterfront property owners to develop sea-level rise protection for the Webster and Posey Tubes and the connecting on-island roadway network along the northern waterfront.
- b. Bay Farm Island. Work with Caltrans, the EBRPD and the City and Port of Oakland to develop sea-level rise protections for Bay Farm Island including Doolittle Drive, State Route 61, the San Francisco Bay Trail access including East Bay Regional Park District's (EBRPD) bike/pedestrian wooden bridge on Bay Farm Island, and the Packet Landing Road Lagoon Outfall.
- **c. Southshore.** Work with the EBRPD and south shore residential and commercial property owners to prepare Shoreline Drive and the adjacent roadway network for sea-level rise.
- **d. East Shore.** Work with Fernside Drive and eastern shoreline homeowners to prepare Shoreline Drive, the Veterans Court area and the adjacent roadway network for sea-level rise.



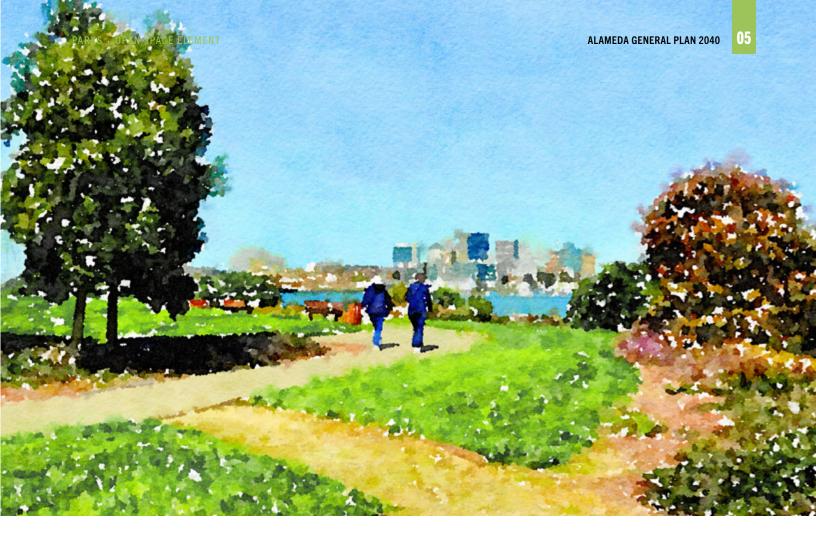
WHAT IS VEHICLE MILES TRAVELLED (VMT)?

VMT is the best measure of the impact on the environment of automobiles from new development. Reducing VMT reduces greenhouse gas emissions and reduces congestion on our streets and roads. VMT has replaced automobile level of service (LOS) as the recommended metric for use in the California Environmental Quality Act (CEQA). LOS measures the volume and speed of vehicles moving through an intersection or on a segment of roadway. Improving LOS increases the speed of vehicles and allows for a greater volume of vehicles through the intersection or on the segment. Increasing automobile speeds and volumes increases greenhouse gas emissions and increases safety hazards for pedestrians and bicyclists.



O5 PARKS + OPEN SPACE ELEMENT

A well designed and maintained interconnected network of neighborhood and community parks, waterfront open spaces, recreational facilities and natural habitat areas is essential to supporting the health and well-being of the community, sustaining and preserving the quality of the natural environment, and countering climate change.



THE GOALS OF THE OPEN SPACE, RECREATION + PARKS ELEMENT ARE TO:

GOAL 1



MAINTAIN & ENHANCE

Maintain, enhance and improve the existing system of parks, open spaces, Nature Reserves, trails, and recreational facilities.

GOAL 2



EXPAND & IMPROVE

Expand and improve the parks and open space system to address the evolving needs of a growing community, serve all residents and neighborhoods equitably throughout the city, and adapt to the climate crisis.



INTRODUCTION TO THE OPEN SPACE, RECREATION + PARKS ELEMENT

A growing population, evolving community needs and recreational preferences, and a changing climate are placing new demands and financial challenges on the community's network of open spaces, parks and recreational facilities.

Alameda's island setting provides a variety of unique open space, recreation, park and natural habitat resources for its residents and visitors. The San Francisco Bay, Oakland Estuary, San Leandro Bay, wetlands, marshes, tidal flats, beaches, public boat launches, small boat marinas, neighborhood and community parks, and recreational facilities provide an interconnected network of open space, parks, and recreational facilities that serve all Alameda residents, business employees, visitors, and local wildlife.

As the demands on the network grow, including rising groundwater and sea levels, many parks, trails and buildings must be managed to maximize the services they provide Alameda. Planning for the future of the community's open space, parks, and recreation network

must include planning for the financial resources needed to preserve, maintain and expand the size and diversity of that network. The City's recreation and parks program maintains more building floor area in support of its public programs than any other department or function in the City of Alameda. Unfortunately, many of these buildings are old, are suffering from the effects of deferred maintenance, and are not adequately accommodating access for individuals with disabilities. Expanding and modifying the network of parks and open spaces to address the needs of a changing population and climate will require additional financial resources and expanded partnerships with other public agencies, the private sector, and the Alameda community. Providing adequate maintenance for the growing network and the buildings and infrastructure that support those lands and facilities will also require increased expenditures of public resources. This will require a wide variety of funding sources, including state and federal grants, local General Fund allocations, development impact fees, and corporate funding.

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TABLE A: CITY OF ALAMEDA OWNED AND OPERATED OPEN SPACE, PARK AND RECREATIONAL FACILITIES	
Community Parks	Approximate Size in Acres
Jean Sweeney Open Space Park	10.64
Krusi Park	7.46
Leydecker Park	5.88
Lincoln Park	7.8
Main Street Linear Park	11
Neptune Park	3.08
Shoreline Park	31.83
Washington Park	14.71
Washington Dog Park	5.7
TOTAL COMMUNITY PARK ACREAGE	98.1
Neighborhood Parks	Approximate Size in Acres
Bayport Park	4.25
Enterprise Park	13.4
Franklin Park	2.98
Godfrey Park	5.45
Chochenyo Park	2.27
Lexington Fields	6.96
Littlejohn Park	3.45
Longfellow Park	1.14
Main Street Dog Park	1.3
Marina Cove Waterfront Park	3.2
Marina Village Park	4.5
McKinley Park	1.22
Portola Triangle	2.15
Rittler Park	4.81
Tillman Park	4
Towata Park	1.55
Woodstock Park	3.96
TOTAL NEIGHBORHOOD PARK ACREAGE	66.59
Regional Parks	Approximate Size in Acres
Alameda Point City Skate Park + Multipurpose Field	5.35
Bill Osborne Model Airplane Field	1.3
Corica Park and Golf Complex	332
Estuary Park Athletic Fields	4.26
Harrington Soccer Field	2.02
Grand Street Boat Launch Facility	n/a
Encinal Boat Ramp Launch Facility	n/a
TOTAL RECREATION ACREAGE	344.93
TOTAL EXISTING	509.62



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GOAL 1: MAINTAIN & ENHANCE

Maintain, enhance and improve the existing system of parks, open spaces, nature reserves, trails, and recreational facilities.

POLICIES:

0S-1

Parks and Open Space Funding. Secure adequate and reliable funding for the development, rehabilitation, programming and maintenance of parks, community and recreation facilities, trails, greenways, and open space areas.

Actions:

- a. Equitable Budget Process. Provide an annual opportunity for a representative group of the public to review the park maintenance budget and comment on upcoming priorities and plans to ensure compliance between the biannual Capital Improvement Program and the General Plan.
- b. Maintenance. Monitor parks and open space and recreational facilities on a regular basis and identify those sites that require repair, renovation and/or improvements. Assign high priority to maintenance and renovation of existing parks and facilities.
- c. Assessment Districts. Consider establishing neighborhood park assessment districts to fund neighborhood park maintenance and improvements.
- d. Natural Areas. Annually consider restoring and preserving natural areas for habitat protection, climate adaptation and passive recreation use such as walking, hiking, and nature study.
- e. Recreation Areas. Annually consider developing areas for recreation use, active transportation and public access along the islands' shorelines and interior. Improve parks and related open space facilities to ensure safety for users and adjacent properties.

0S-2

Partnerships. Pursue and develop partnerships with federal, regional, and local non-profits, agencies, organizations, and districts to reduce the costs borne by the City of Alameda for the acquisition, construction, operations, and/or maintenance of parks, open space, facilities and programs. (See also Policies ME-24 and HS-16).

- a. Alameda Unified School District (AUSD) Partnerships. Continue to support and collaborate with the AUSD to ensure that school and park open space joint uses are optimized.
- b. East Bay Regional Park District (EBRPD)
 Partnerships. Continue to support and collaborate with the EBRPD to ensure and protect the benefits of regional parks in Alameda. Collaborate with the EBRPD to develop, operate and maintain facilities and programs at regional parks including Alameda Point Northwest Regional Shoreline Park, Encinal Beach, Crown Memorial State Beach and Alameda Beach, portions of the Bay Trail, and the Elsie D. Roemer Bird Sanctuary.
- c. Federal Partnerships with the U.S. Veterans
 Administration and U.S Fish and Wildlife. Continue
 to develop and sustain partnerships with the Veterans
 Administration and the U.S. Department of Fish and
 Wildlife to ensure the protection and maintenance of
 the Nature Reserve at Alameda Point.
- d. Private Sector Partnerships. Continue to develop public-private partnerships for the development, maintenance and operation of publicly accessible open space and recreational facilities, such as the Corica Park Golf Course Complex, Alameda Point Sports Complex, and the development of new parks at Alameda Point and along the Northern Waterfront.

107

0S-3

Revenue Generating Opportunities. Pursue and develop revenue generating approaches, including cost recovery opportunities, concessions, design flexibility, independent use, and opportunities for rentals.

Actions:

- **a. Leases.** Consider long term leases for complementary revenue generating uses, such as concessions or other uses available to the public.
- **b. Sponsorship.** Consider corporate sponsorship and/or naming rights agreements that do not limit or change public access rights.

0S-4

Grant Funding Opportunities. Continue to pursue park and open space grant opportunities and cooperative agreements with local, regional, state and federal agencies for expansion of the City's park and open space system.

0S-5

Accessibility For All. Continue to upgrade parks, trails, and community facilities to ensure accessibility and inclusivity for all residents. (See also Policies LU-2, LU-3 and LU-24).

0S-6

Efficient Operations. Reduce operational duplication and provide services, programs, and facilities as efficiently as possible.



Photo by Alain McLaughlin

05



SPOTLIGHT



MONARCH BUTTERFLY

These orange and black butterflies make massive migrations from August-October, flying thousands of miles south to winter along the California coast and in central Mexico. Every fall, the monarch flies to the same overwintering sites and frequently to the same trees. Alameda Point, Estuary Park, and the Chuck Corica Golf Complex on Bay Farm Island have all served as autumnal roost sites for these unique butterflies on their long annual travels. Given the subspecies of the Monarch Butterfly that calls North America home, Danaus plexippus, is imperiled. Preserving winter habitats along the California coast is a conservation priority.



LEAST TERN

The California least tern, by far the smallest member of the gull family, has become a top priority in recent decades for Open Space planning at Alameda Point. In the summer breeding and hatching season, the endangered species often has over 300 nests on Alameda Point thanks to continued efforts to protect and improve its habitat. The tern migrates south each year to Mexico and Guatemala and feeds primarily on small fish and shrimp.

5 7 2 3

GOAL 2: EXPAND & IMPROVE

Expand and improve the parks and open space system to address the evolving needs of a growing community, serve all residents and neighborhoods equitably throughout the city, and adapt to the climate crisis.

POLICIES

0S-7

An Interconnected Network. Promote the creation of and maintenance of a comprehensive, seamless, interconnected system of parks, open space, commercial recreation, trails, and urban forest that frames and complements the City's waterfronts, neighborhoods, and commercial areas. (See also Policies LU-3 and ME-10).

Actions:

- **a. Trails.** Continue to create a network of safe and convenient pedestrian and bicycle trails connecting all public open spaces, parks, and recreational facilities to improve access to parks and destinations throughout Alameda.
- **b. On-Street Connections.** Promote improvements to on-street connections to ensure pedestrian and bicycle safety where separated trails are not feasible.
- c. Slow Streets. Work with community stakeholders to expand a network of slow streets to create additional spaces for active recreation, while maximizing existing trails, open spaces and destinations to make them more accessible and enjoyable to more people.
- d. Flexible Spaces. Consider public and privately owned sites that could be made available for public use, such as community gardens and sports fields.
- **e.** Collaborative Design. Work with neighborhoods in the design of parks and recreational facilities to meet the unique needs and interests of residents.

0S-8

Waterfront Access. Ensure safe and convenient access to the Alameda waterfront from all Alameda neighborhoods. (See also Policies LU-30 and ME-13).

Actions:

a. Trails. Expand the City's trail system to provide additional north-south trails and safe on-street connections to link neighborhoods to the closest waterfront shoreline facilities.



- **b.** Bike Parking. Provide bike parking at public access points along the waterfront.
- **c.** Preservation of View Corridors. Preserve view corridors to the waterfront along public streets, pathways, and trails.
- d. Protect Public Rights-of-Way. Prohibit private encroachments on public property and ensure that the use of public property does not create significant negative impacts to adjacent property owners.
- e. School Partnerships. Work with the Alameda Unified School District in obtaining shoreline access at Lincoln Middle School, Paden School and Encinal High School.
- f. SF Bay Water Trail. Add access to the water with public boat launches for non-motorized craft at strategic points around the island with connections to the SF Bay Water Trail.
- g. Continuous Public Shoreline Access. Require that new developments along or adjacent to the waterfront provide continuous shoreline access to serve the public.

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SPOTLIGHT



SF BAY WATER TRAIL

The SF Bay Water Trail is a regional program that encourages non-motorized small boaters to safely enjoy the San Francisco Bay. Just as the SF Bay Trail connects people to the bay by land, this project promotes recreational access to the water itself.

While there are a couple trailheads in and around Alameda, the Encinal Beach and Boat Launch is Alameda's signature launch site for the Water Trail. This site, located between rich wildlife habitat areas, offers a unique way to see the wide variety of birds and other Bay wildlife that spend time near the shore.

0S-9

San Francisco Bay Trail. Support the completion of a continuous shoreline Bay Trail along the entire perimeter of the City of Alameda, refer to Figure 6.3. (See also Policies LU-30 and ME-13).

Actions:

- **a. Diversity of Uses.** Support a variety of recreation activities including walking, rolling, running, bicycling, fishing, and vista points along the Bay Trail.
- **b. Destinations.** Promote the creation of a sequence of open spaces and activity areas that occur at significant points along the waterfront and offer recreational opportunities and enhance other uses along the waterfront.
- **c. Room for Everyone.** Ensure that the public access path along the waterfront includes a separated path for bicyclists or is wide enough to minimize conflicts between pedestrians and bicyclists.
- **d. Neighborhood Connectivity.** Support the creation of pedestrian and bicycle pathways and visual corridors along the waterfront that link the waterfront to inland neighborhoods.
- **e. Resilience.** Utilize current sea level rise projections when planning trail expansion and maintenance and design trail upgrades to ensure long-term resilience.

OS-10

Cross Alameda Trail. Promote the completion of the Cross Alameda Trail for people walking, rolling and cycling from the Alameda Point park at Seaplane Lagoon to the Miller Sweeney Bridge to support access to the citywide network of parks. Refer to Figure 6.3. (See also Policy ME-13).

Action:

a. Oakland Connection. Work with the County of Alameda and the City of Oakland to provide safe and convenient pedestrian and bicycle facilities from the Cross Alameda Trail across the Miller Sweeney Bridge to the Bay Trail in Oakland.





THE SAN FRANCISCO BAY TRAIL

One of the most ambitious trail networks in the United States, the San Francisco Bay Trail follows much of the shoreline of the San Francisco Bay. It is planned to provide over 500 miles of trails connecting residents of 77 cities with opportunities for active and passive recreation while enjoying fresher air and pleasant views that come with being close to the Bay. With the addition of ferry terminals, the Bay Trail will become a more important commuting corridor, especially for waterfront cities like Alameda.

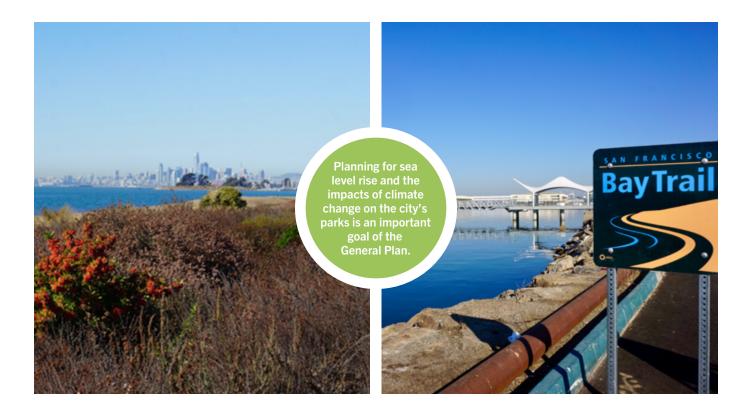
CROSS ALAMEDA TRAIL

The Cross Alameda Trail, when completed, will provide a safe bicycle and pedestrian connection from Alameda Point to the Fruitvale Bridge. The rails-to-trails movement has become a massive success around the United States, with Atlanta's BeltLine as the largest example of how linear parks can completely transform a city's central neighborhoods. These linear parks have an advantage over their shoreline cousins in that they are surrounded by destinations, and ideally, connections, on all sides. The crown jewel of the

Cross Alameda trail, Jean Sweeney Open Space Park, is a rails to trails project that turned an old rail yard into a park that provides key walking and biking connections between Constitution Avenue and Sherman Street. With the rise of electric-assisted, shared micro-mobility options, the Cross Alameda trail could lead to a major reduction in car trips and improved access to Alameda's top destinations as well as to key transportation hubs like the new ferry terminal at Seaplane Lagoon.

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5 ALAMEDA GENERAL PLAN 2040 PARKS + OPEN SPACE ELEMENT



0S-11

Climate Adaptation. Adapt the existing park and open space network to rising sea levels, more severe storm events and wave energy and rising groundwater. (See also Policies CC-21 and CC-33).

Actions:

- a. Green Infrastructure. Utilize natural, green or 'soft infrastructure' such as sand dunes and wetlands over 'hard infrastructure' (concrete seawalls and/or levees) wherever possible.
- **b. Hidden Benefits.** Recognize and promote the open space network as an expanding asset that contributes to community character, reduces stormwater runoff and increases citywide resiliency.

0S-12

Wildlife Habitat. Promote the preservation, protection and expansion of wildlife habitat areas, open space corridors, and ecosystems as essential pieces of the overall network and important contributors to building citywide resilience. (See also Policy CC-27).

0S-13

Jean Sweeney Open Space Park. Support the completion of the last two phases of the 25-acre Jean Sweeney Open Space Park to include a community garden, demonstration gardens, walking trails, a bicycle skills loop, an outdoor classroom, picnic areas, and large areas of open space and trees.

0S-14

Estuary Park. Support the completion of the 8-acre Estuary Park to provide recreational facilities for the neighborhoods on the former Naval Air Station property in western Alameda to include passive recreational space, picnic areas, and basketball courts.

0S-15

City Aquatic Center. Partner with the Alameda Unified School District to develop a City Aquatic Center to serve the community's swimming needs and AUSD swim programs.

0S-16

Alameda Point Northwest Shoreline Park and Bay Trail Extension. Partner with the East Bay Regional Park District to develop a 158-acre waterfront public park and Bay Trail extension on the Northwest Territories.

0S-17

Alameda Nature Reserve and Bay Trail Extension.

Partner with the Bureau of Veterans Affairs and the Department of Fish and Wildlife to create a seasonal trail along the shoreline of the Nature Reserve. (See also Policy CC-28).

Action:

- **a. Education.** Support creation of related educational facilities and programs.
- b. Ship/Ferry Access. Ensure access for ships, ferries, and water-taxis within the deep-water channel to the Alameda Point piers and the Seaplane Lagoon through the southern bay waters of the Nature Reserve.
- **c. Habitat.** Promote the maintenance of the breakwater gap and Breakwater Island for wildlife habitat.
- **d. Wetlands.** Support actions by the federal government that improve and manage wetlands, increase carbon sequestration, and support long-term climate resiliency for Alameda.

0S-18

DePave Park on the Seaplane Lagoon and Bay Trail Extension. Implement the development of the 22-acre western shore of the Seaplane Lagoon as a passive nature park with upland and floating wetlands, educational and interpretive programs, picnic areas, camping opportunities, and nature trails. (See also Policy CC-27).

0S-19

Seaplane Lagoon Park and Bay Trail Extension. Support the development of the northern and eastern shore of the Seaplane Lagoon as an urban waterfront with access to the Ferry Terminal, the Bay Trail, waterfront dining and cafes, passive recreation space, an outdoor amphitheater, public boat launches, and non-motorized watercraft rentals and lessons.





WILDLIFE HABITAT AREAS OF INTEREST

The San Francisco Bay is the largest estuary along California's coastline, and the estuarine environment of marshlands, mudflats, salt production lands, and open water supports close to 100 species of fish. As an essential portion of the Pacific Flyway, a bird migration route which spans from Canada to Mexico, the Bay supports countless migratory as well as year-round bird species.

Alameda Nature Reserve: the endangered California least tern has its nesting sites in the Reserve. In spite of its restricted access, citizen scientists have identified 209 different species of birds from April 2004 to March 8, 2020 in the Reserve (source: eBird).

Elsie Roemer Bird Sanctuary has had sightings of 165 different species of birds from 2010-2019.

Robert W. Crown State Marine Conservation Area has had sightings of 189 species of birds (2010-2019), while in 2019 Alameda County as a whole had 298 species of birds identified within its borders.

Bay Farm Island was identified by Bay Area Greenprint as having much of Alameda's especially valuable habitat for federally endangered and threatened species.

Bay Farm Island Shoreline has had documented sightings of 126 species of birds (from 2010-2019), with its habitat value higher thanks to its proximity to Arrowhead Marsh (214 species) and other rich habitat areas like Peet's Pond (96 species).

The egret rookery on Bay Farm Island (on the lagoon by the Peter Pan School) has had sightings of 53 species of birds from 2010-2019.

Seaplane Lagoon has had sightings of 89 different bird species from 2010-2019.

Wetlands: Two separate beds of eelgrass provide distinctive habitat for marine organisms living in the waters off of Alameda. The bed which is southwest of Bay Farm Island is believed to be the richest grass bed left in San Francisco Bay, with respect to the presence of small animals. The grass is long and wide, grows quickly, and dozens of common species are known to be associated with this bed of eelgrass. The endangered Least Terns are known to forage on herring living in and around this eelgrass. The second bed of eelgrass off of Crab Cove, although shorter and growing in shallower water, probably also provides a nursery for fish species which the Least Terns nesting at Alameda Point (GPA 01-01) forage.

ALAMEDA GENERAL PLAN 2040 PARKS + OPEN SPACE ELEMENT



(PHOTO BY ALAIN MCLAUGHLIN)

ADOPTED NOVEMBER 30, 2021

0S-20

Regional Sports Park. Promote the development of a 55-acre regional sports complex for active recreational uses and team sports, including baseball and softball diamonds, multi-purpose rectangular fields, expanded skate park, BMX park, tennis and pickleball courts.

0S-21

Waterfront Developments. Partner with private property owners to develop publically accessible waterfront open space and Bay Trail facilities in new waterfront developments. (See also Policies LU-18, LU-23, and CC-34).

Action:

- a. New Open Space. Partner with private property owners and businesses to develop publicly accessible waterfront parks and trails at:
 - » Alameda Landing Waterfront
 - » Ballena Isle
 - » Marina Village Shipways property
 - » Former Windriver property on the Alaska Basin
 - » Encinal Terminals and the Alaska Basin
 - » Alameda Marina
 - » Other future waterfront development

0S-22

Alameda Point Marine Conservation, Wildlife and Recreation Area. Support partnerships with regional, state, and federal conservation agencies, and volunteer non-governmental organizations to seek funding to enhance and protect habitat values, ensure safe public access, and foster appreciation of the marine environment just south of Alameda Point. (See also Policy CC-29).



SPECIAL STATUS WILDLIFE SPECIES

A number of species known to occur in and around Alameda are protected pursuant to federal and/or State of California endangered species laws, or have been designated Species of Special Concern by the California Department of Fish and Wildlife. Special status wildlife species that have been observed or have a moderate to high potential to occur in and around Alameda, include:



MARINE SPECIES:

- + Green sturgeon
- + Central California coast coho salmon
- + Central California coastal steelhead
- + Central Valley steelhead
- + Sacramento River winterrun Chinook salmon
- + Central Valley spring-run Chinook salmon
- + Longfin smelt
- + Pacific herring
- Central Valley fall/late fallrun Chinook salmon
- Pacific harbor seal
- California sea lion



BIRDS, BUTTERFLIES, AND BATS:

- + California least tern
- + Western snowy plover
- + White-tailed kite
- + Peregrine falcon
- + California brown pelican
- + Monarch butterfly
- + Cooper's hawk
- + Great egret
- + Great blue heron
- + Burrowing owl
- + Great horned owl
- + Red-tailed hawk
- + Red-shouldered hawk
- + Northern harrier

- + Snowy egret
- California horned lark
- American kestrel
- + Caspian tern
- Loggerhead shrike
- California gull
- + Alameda song sparrow
- + Osprey
- + Double-crested cormorant
- + Townsend's big-eared bat
- + Ridgway's Rail
- + California Black Rail
- + Bryant's Savannah Sparrow

O6 HEALTH + SAFETY ELEMENT

The Health and Safety Element identifies the policies and actions necessary to sustain the health and safety of Alameda residents and visitors 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 in the City of Alameda.



THE GOALS OF THE SAFETY + NOISE ELEMENT ARE TO:

GOAL 1



PROTECT

Protect the health, safety and general welfare of Alameda residents, workers and visitors.



LIMIT

Limit exposure to natural and man-made hazards.

GOAL 3



MINIMIZE

Minimize disruption of essential public services, facilities, and infrastructure as the result of public health emergencies or natural disasters.

GOAL 4



RECOVER

Facilitate timely and complete recovery from a natural disaster.

GOAL 5



AWARENESS

Increase public understanding and awareness of hazards and hazard mitigation.

GOAL 6



INCLUSION

Promote participation in mitigation and resilience actions by Alameda residents, workers, and partner agencies.

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THE HEALTH + SAFETY ELEMENT IS INFORMED BY:

- The City of Alameda Local Hazard Mitigation Plan
- City of Alameda Emergency Operations Plan
- Association of Bay Area Government's Resilience Program
- Adapting to Rising Tides, Transportation Vulnerability and Risk Assessment Pilot Project (prepared by Metropolitan Transportation Commission, California Department of Transportation and the San Francisco 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 the San Francisco Bay Conservation and Development Commission)
- Adapting to Rising Tides:
 Oakland/Alameda Resilience
 Study (prepared by the San
 Francisco Bay Conservation
 and Development Commission
 and the Association of Bay Area
 Governments)
- California Governor's Office of Emergency Services
- United States Geological Survey Earthquake Preparedness
- The National Oceanic and Atmospheric Administration: Weather-Ready Nation
- Alameda Climate Action and Resilience Plan + Social Vulnerability Assessment Appendix

INTRODUCTION TO HEALTH + SAFETY ELEMENT

Alameda residents are susceptible to a number of global natural hazards, including climate warming and pandemics, which pose immediate and future health and safety risks for Alameda residents.

Alameda is also susceptible to a variety of local natural hazards, including earthquake shaking and liquefaction, tsunamis, flooding due to storm events, and inundation from sea level and groundwater rise.

Man-made hazards include health and safety risks from the Oakland airport's operations, including airplane emissions and noise, automobile and truck emissions and noise, and subsurface and above ground storage and use of hazardous materials.

7.1 EMERGENCY MANAGEMENT

Alameda aspires to be a resilient city that is able to adapt to a changing climate and reduce the loss of life, property damage, and environmental degradation from disasters while accelerating economic recovery from those disasters. Alameda enhances community resilience by improving the buildings and infrastructure we all rely on, responding to disasters quickly and effectively, helping owners rebuild damaged buildings quickly, protecting tenants, and keeping businesses open during recovery.

Disasters are rarely limited to jurisdictional boundaries. The Federal Disaster Mitigation Act of 2000 encourages state, regional and local agencies to work together to mitigate hazards. The City of Alameda maintains an Emergency Management Program to coordinate the City's response to public health and safety emergencies and natural disasters.



OBJECTIVE 1

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:

HS-1

Emergency Preparedness. Maintain emergency management and disaster preparedness as a top City priority.

Actions:

- **a. Update Emergency Operations Plan.** Maintain and update the recommendations and standards established in the City of Alameda's Emergency Operations Plan as the guide for disaster planning in Alameda.
- **b. Training.** Maintain training programs to ensure that City personnel are sufficiently prepared to respond to an emergency and staff the Emergency Operations Center.
- **c. Facilities.** 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. Exercises.** Conduct periodic emergency response exercises to test the effectiveness of local preparedness response, recovery, and mitigation procedures.

HS-2

Emergency Operations Center. Continue to maintain and support the Operations Center with current technology and emergency preparedness best practices so the City is well prepared to respond to a major emergency event. (See also Policy ME-9).

HS-3

Mutual Aid Agreements. Coordinate local emergency preparedness efforts with the Federal Emergency Management Agency, Coast Guard, United States Maritime Administration Ready Reserve Fleet, the San Francisco Bay Area Water Emergency Transportation Authority, the Port of Oakland, adjacent jurisdictions, the Alameda Unified School District, the various private schools in Alameda, local hospitals, housing facilities for seniors or individuals with disabilities, 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. (See also Policy CC-3).



SPOTLIGHT

EARTHQUAKE HAZARDS



3 72%

According to the United States Geological Survey (USGS), the chance of an earthquake of M6.7 or greater in the Bay Area in the next 30 year is 72%.



The chance of a M6.7 or greater earthquake on our closest fault, the Hayward - Rodgers Creek Fault, in the next 30 years is 33%.



10%

Combining all likely scenarios, Alameda has a 10% chance of experiencing "Severe" to "Violent" (MMI XIII to MMI IX) shaking in the next 50 years.

HS-4

Public Communication. Maintain and promote community programs to train volunteers, support vulnerable community members like seniors and individuals with disabilities, coordinate with food banks and other local aid organizations, and assist police, fire, and civil defense personnel during and after a major earthquake, fire, or flood. (See also Policy CC-1).

Actions:

- a. Volunteers. 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. Education. 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 location of shelters and medical facilities.
- c. Targeted Communication. Engage Alamedans using a wide range of tools, languages and strategies to communicate about all types of health threats and planning, with a special emphasis on the most vulnerable people who are least likely to know about or be able to adapt to various threats.

HS-5

Vision Zero. Ensure that the City prioritizes 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. (See also LU-3, ME-5, ME-7, ME-10 and the Mobility Element Spotlight on Vision Zero).

HS-6

Crime, Policing and Safety. Prioritize resources for prevention instead of enforcement. (See also Policies ME-2, ME-7 and ME-10).

- a. Lighting. Ensure public rights-of-way are well-lit at night, especially at intersections and on bike and pedestrian trails, to improve traffic and crime safety for people walking and rolling.
- **b.** Eyes and Feet on the Street. Promote walkable places that are oriented to the public right-of-way to prevent crime and to increase security.
- c. Mental Health. Prioritize use of mental health professionals over use of police officers when addressing complaints regarding nuisance or illegal behavior by individuals with potential mental health issues.

HS-7

Infectious Disease Preparedness. Prepare for outbreaks of more regular infectious diseases like the flu and less common events including pandemics. (See also Policies ME-14, CC-5, CC-6, and CC-13).

Actions:

- a. Response Plans. Develop and maintain comprehensive local response plans to infectious diseases, in consultation with Public Health Departments, focused first on protecting the most vulnerable populations from disease, displacement and other consequences of an infectious disease event.
- **b. Preparedness.** Be prepared to make public and private space, such as public streets, parking lanes and sidewalks available to accommodate physical distancing such as through outdoor dining, drop off and pick up zones, slow streets, and parklets.
- **c. Contactless.** Continue to modernize public facilities and equipment, such as traffic signal "push buttons," parking meters, and foot handles on doors and gates, to minimize the need for touching shared surfaces to reduce the risk of spreading infection.
- **d. Digital Infrastructure.** Continue to work with service providers to ensure that all Alameda residents and businesses are adequately served by digital infrastructure needed to work or learn remotely.
- e. Overcrowding. Minimize residential overcrowding by meeting local and regional housing needs.
- **e.** Curb Flexibility. Explore more flexible uses for curb space to facilitate parklets, outdoor dining and pickup/drop-off zones.
- f. Air Quality. Continue to work to improve indoor and outdoor air quality.

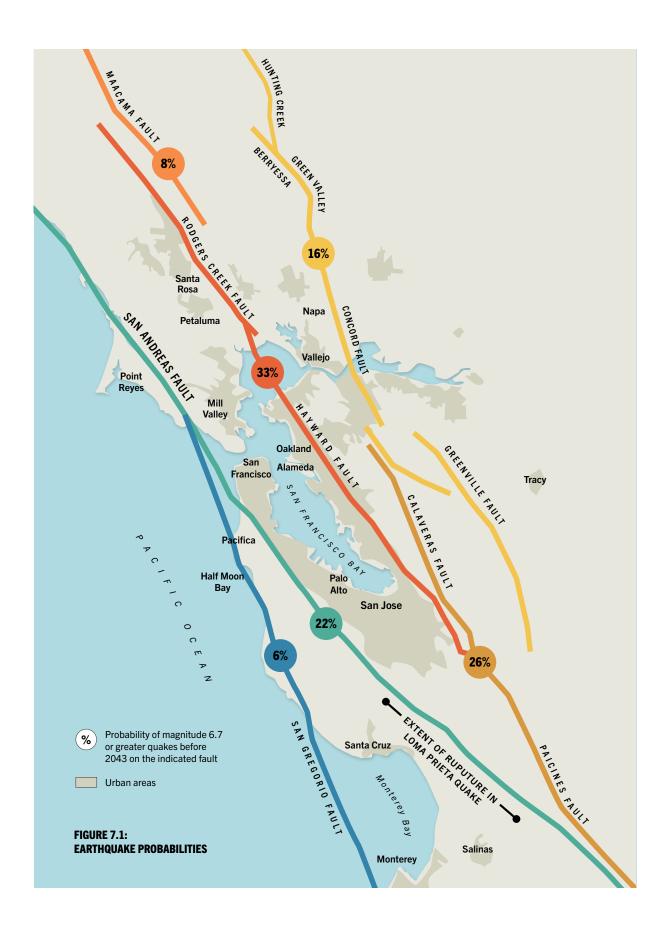
HS-8

Resilience and Recovery. Develop informed long-range plans to respond to economic and health crises.

Actions:

- **a. Data and Information.** Ensure that data collection is prioritized so that data-informed decisions are driving recovery efforts with regard to equity, prioritization of investments, infrastructure, public health and safety.
- **b. Budget and Prioritization.** Ensure that revenue projections are well integrated into plans and assessments are made for immediate and long-term priorities regarding what items have a direct impact on recovery, what items are required by the State, and what items should be longer-term investments.
- **c.** Economic Recovery. Prioritize the needs of the most economically vulnerable members of the community, including small businesses, in economic recovery plans and programs.
- **d. Community Resilience.** Build capacity for quick and effective recovery from disasters and disruptions both within the communities most impacted and from the City itself.

ALAMEDA GENERAL PLAN 2040 HEALTH + SAFETY ELEMENT



ADOPTED NOVEMBER 30, 2021

7.2 SEISMIC + GEOLOGIC HAZARDS

Earthquakes are the most significant geologic hazard facing the residents and businesses in Alameda. In addition to the initial shaking, Alameda is also subject to liquefaction, lateral spreading, and tsunamis resulting from earthquakes. Figure 7-1 illustrates the proximity of Alameda to the Hayward and San Andreas faults. The likelihood of liquefaction and lateral spreading in Alameda is high in areas with artificial fill and loose sands and silts, such as along the shoreline. Strong shaking causes the ground to behave like a liquid and may sink, spread or erupt in sand boils. This can cause pipes to break, roads and airport runways to buckle, and building foundations to be damaged. In Alameda, the 1989 Loma Prieta earthquake caused damage to buildings, water mains, sewer lines, streets and bulkheads. Liquefaction occurred at Alameda Point and Harbor Bay Business Park. South Shore experienced buckled streets and sidewalks and subsidence that disrupted the sanitary sewer and required construction of a new sanitary sewer pump station. Future earthquakes that are closer or larger magnitude than Loma Prieta may cause more significant damage, especially for Alameda's relatively old housing stock and unique historic commercial buildings which were generally constructed without the benefit of modern building code requirements to resist earthquake shaking.

Figure 7-2 illustrates Alameda's susceptibility to severe liquefaction in the event of ground shaking. Climate change may increase the risk of liquefaction. Rising sea levels will cause rising groundwater levels in Alameda. Liquefiable soils that become saturated with groundwater are at increased risk of liquefaction.



OBJECTIVE 2

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

POLICIES:

HS-9

Building Standards. Maintain up-to-date building codes and encourage new and existing buildings and infrastructure to be designed or retrofitted for timely restoration of service (functional recovery) following an earthquake, with particular attention on the effects of liquefaction on buildings and infrastructure.

HS-10

Transportation Facilities. 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. (See also Policies ME-9 and ME-15).

HS-11

Life-line Standard Estuary Crossing. 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 shortly after a major seismic event. (See also Policy ME-6).

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SPO

SPOTLIGHT

ABANDONED FRUITVALE RAIL BRIDGE: PUBLIC SAFETY HAZARD

Built in 1951, the last train crossed the Fruitvale Rail Bridge 20 years ago, in 2000. Owned by the U.S. Army Corps of Engineers, the bridge poses a seismic safety hazard to the adjacent Miller-Sweeney Bridge. According to a 2011 U.S. Army Corps of Engineers report, the rail bridge "is severely overstressed for current seismic loading requirements and it is likely that the structure would collapse from such an event," and the capability of the bridge to withstand current earthquake loading "is significantly below current code requirements." In contrast, the Miller-Sweeney Bridge has been maintained to a "no collapse" structural standard by the County of Alameda and serves as a critical link to the region in the event of a major seismic event, provided that the abandoned rail bridge does not collapse onto it. The City of Alameda is working with the federal government to fund the removal or rehabilitation of this public safety hazard.



HS-12

City Buildings and Infrastructure. Continue to strengthen and rehabilitate city buildings and infrastructure, including but not limited to waste water systems and pump stations, storm water systems and pump stations and electric systems and facilities to ensure that the City can respond effectively to a seismic event. (See also Policies CC-4, CC-5, CC-13, CC-14, CC-16).

HS-13

Private Buildings. 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.

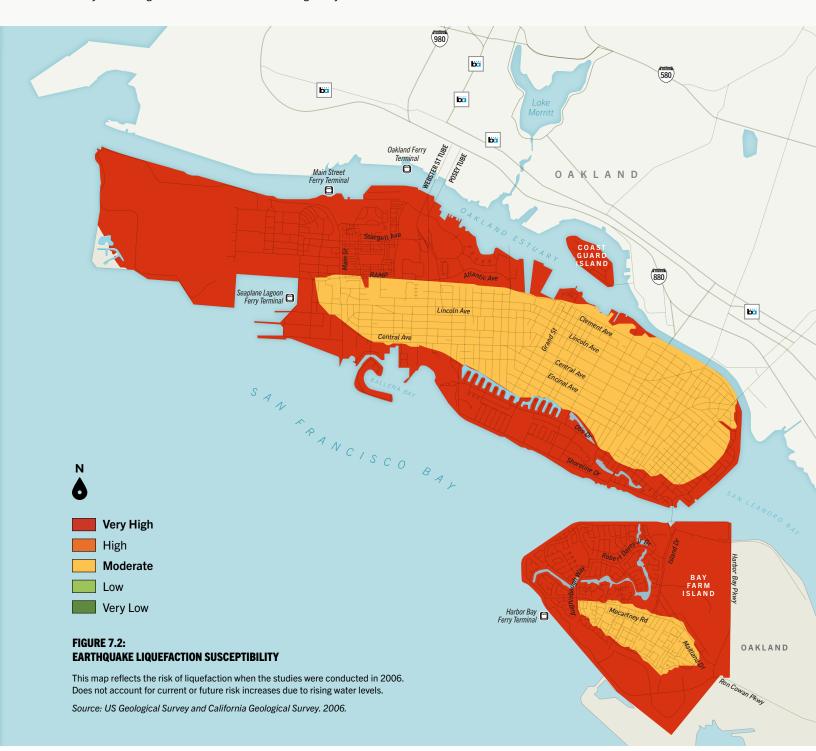
Actions:

- a. Soft Story Program. Continue to implement the City's Soft Story Program including mandatory requirements for substantially improving the seismic performance of multifamily wood frame residential buildings with open ground floor parking or commercial spaces known as soft stories.
- b. Wood Framed Building Program. 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.** Non-ductile Concrete Buildings. Identify, evaluate and retrofit non-ductile concrete residential and nonresidential buildings that are vulnerable to collapse in earthquakes.
- **d. Chimneys.** Encourage owners to remove or rebuild masonry or stone chimneys vulnerable to collapse in earthquakes.
- e. Incentives. Develop incentives and assistance to help property owners make their homes and businesses more earthquakesafe. Pursue a variety of funding sources, such as grants, low-interest loans, tax credits and zoning waivers and density bonuses, to assist residents and businesses with seismic upgrades. Provide exemptions from City zoning requirements, such as off-street parking and/or common open space to facilitate the retrofitting of vulnerable privately-owned buildings.
- f. Shoreline Property Management. 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.



WHAT IS LIQUEFACTION?

Liquefaction is a phenomenon where loose saturated sandy and silty soils lose strength and behave like a liquid during the intense shaking of an earthquake. The highest hazard areas are concentrated in regions of man-made landfill, especially fill that was placed many decades ago in areas that were once submerged bay floor.



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7.3 FLOODING + GROUNDWATER + SEA LEVEL RISE

As a low-lying community in the San Francisco Bay Area, 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 to February, and is usually about 7.4'. Every year, there is a 1% 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 Alameda is likely to experience storms. During an extreme storm event, the sea level can temporarily rise several feet above the level predicted by tide tables. During the El Niño event of 1997-98, up to two 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 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. Much of the Alameda shoreline and adjacent properties and infrastructure are particularly vulnerable to inundation as the result of climate induced storms and sea level rise. As the sea level rises, the groundwater levels will also rise so that even smaller high tides and storms result in flooding along shorelines, lagoon systems, and in low lying inland areas throughout Alameda. Rising groundwater levels may undermine foundation strength, damage sewer and other underground utilities, expand earthquake liquefaction hazard zones, and facilitate the emergence of underground hazardous materials.



ALAMEDA GENERAL PLAN 2040 HEALTH + SAFETY ELEMENT



OBJECTIVE 3

Minimize risks of loss of life, personal injury, property damage and environmental degradation posed by drought, sea level and groundwater rise, flooding and stormwater runoff.

POLICIES:

HS-14

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

HS-15

Flood Hazard Maps. Prioritize the review and publishing for public discussion the latest and most up to date flood hazard and sea level rise forecasts from all trusted sources. (See also Policy CC-19).

Action:

a. Process. Create a regular process by which information is updated and released, identifying staff time and budget to ensure that this information is timely, accurate and accessible for all public and private decision-makers.

HS-16

Regional Partnerships. Actively participate in regional discussions on drought, groundwater and sea level rise mitigation, infrastructure improvements, and adaptation strategies. (See also Policies LU-14, CC-3 and ME-24).

Action:

a. Funding and Partnerships. Develop partnerships with local, regional, and state agencies to expedite adaptation projects and ensure a healthy watershed that protects and restores water quality, habitat and community vitality along San Leandro Bay and the Oakland-Alameda Estuary.

HS-17

Public Infrastructure Priorities. Identify public transportation, open space, and stormwater and wastewater facilities, shoreline assets, and other public assets vulnerable to sea level and groundwater rise and flooding hazards, and prioritize projects for adaptation funding. (See also Policy CC-22).

Action:

a. Shoreline Facilities Program. 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.

HS-18

Preferred Strategies. Develop sea level and groundwater 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 flood water pumping stations, and inland detention basins to reduce peak discharges. (See also Policies LU-14 and CC-24).

HS-19

Public Infrastructure. Protect and upgrade public infrastructure, including but not limited to streets, wastewater systems and pump stations, storm water systems and pump stations and electric systems and facilities to ensure capacity and resilience during storm events, high tides, and groundwater and sea level rise, to decrease the chance of flooding of nearby streets, utilities, and private property.

HS-20

Tsunami Strategy. Assess vertical evacuation options and develop an evacuation strategy, including wayfinding signs, with a focus on access and functional needs.

Action:

a. Awareness. Develop a public information campaign to educate the public about tsunami risks and evacuation procedures, with special emphasis on access and functional needs populations.

HS-21

Resilient Rights-of-Way and Open Spaces. Design street rights-of-way, parks, other public spaces, street trees and landscaping to be resilient to temporary flooding. (See also Policies LU-2, LU-3, ME-9 and ME-10 and ME-23).

HS-22

New Development. Require all new development to design for sea level and associated ground water rise based on the most current regional projections. (See also Policies LU-30 and CC-20).

Actions:

- **a. Waterfront Setbacks.** Require new development to provide adequate setbacks along waterfront areas for the future expansion of seawalls and levees to adapt to sea level rise.
- **b. Data.** Update maps and publish open data that display these risks clearly as soon as new data or guidelines are created, such as a digital elevation model, sea and groundwater risks, or the latest risk tolerance guidance provided by the State of California.

HS-23

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

HS-24

Groundwater Management. Require and enforce stringent groundwater management programs to prevent subsidence. (See also Policy CC-23).

HS-25

Green Infrastructure. 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. (See also Policy CC-33).



GLOBAL WARMING + SEA LEVEL RISE

Following sea level rise adaptation guidance from the State of California and recommendations from Alameda's Climate Action and Resiliency Plan, the City of Alameda, until the state updates its guidance or the city updates its Climate Action and Resiliency Plan, will plan for a potential:



2050

ON THE ALAMEDA CO COASTLINE



INCREASE IN SEA LEVEL BY

2060-70

AND A

6.9ft

INCREASE IN SEA LEVEL BY

2100

Sources:

State of California Sea Level Rise Guidance (2018) Alameda Climate Action and Resiliency Plan (2019) 06

7.4 FIRE HAZARDS + 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 4

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

POLICIES:

HS-26

Fire Prevention Capabilities. Maintain the City's fire prevention, disaster preparedness, and fire-fighting and emergency medical service capabilities.

HS-27

Response Time. 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.

HS-28

Collaboration. Work collaboratively with other jurisdictions and agencies to reduce fire hazards in Alameda, such as post-earthquake fire hazards, with an emphasis on mutual aid agreements.

Actions:

- a. Shutoff Protocol. Establish a local protocol to shut off natural gas supply through shutoff valves on gas meters in the highest risk neighborhoods.
- **b. EBMUD.** Develop emergency water storage facilities to provide drinking water to EBMUD customers as well as fight fires in the event an earthquake disrupts the water supply to Alameda.
- c. Portable Fire Fighting System. Acquire the capability to use Bay water to fight fires using a system compatible with the ones in nearby cities like San Francisco and Berkeley.

HS-29

Building Codes for New Development. Require new development to comply with the City's current Electrification, Fire, Seismic, and Sprinkler Codes.

HS-30

Prevention in Existing Properties. Encourage existing properties to minimize the risks of fire and include adequate provisions for emergency access and appropriate firefighting equipment.

Action:

a. Electrification. Encourage existing properties to convert natural gas fueled space heating, water heating, clothes drying and cooking appliances to electric to minimize the risk of fires and improve indoor air quality.

HS-31

Underground Utilities. Require new development to underground utilities to minimize disruption by fire or other natural disasters. (See also Policy CC-5).

7.5 HAZARDOUS MATERIALS + WASTE

The careful management of hazardous materials and the reduction in generation and safe disposal of hazardous waste is 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 5

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 wastes.

POLICIES:

HS-32

Transportation of Hazardous Materials. Continue to identify and assess the risks associated with various hazardous materials transported in Alameda.

HS-33

Awareness. 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.

Action:

a. Education on Safe Disposal. 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.

HS-34

Hazardous Waste Reduction. 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.

Action:

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

HS-35

Contaminated Sites Cleanup. 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 wastes on any contaminated sites.

Action:

a. New Construction. 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.

HS-36

Resource Recovery Initiatives. Continue to support the various resource recovery initiatives and other measures specified in the Alameda County Countywide Integrated Waste Management Plan. (See also CC-17).

HS-37

Hazardous Material Incident Plan. 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. (See also CC-27).

Action:

a. Training and Capability. 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.

HS-38

Separation of Uses. Require adequate and safe separation between areas and uses with hazardous materials and sensitive uses such as schools, residences and public community facilities.

HS-39

Hazardous Material Containment. 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.

HS-40

Radon Gas. Encourage residential, commercial and industrial property owners to test their properties for elevated levels of radon gas (more than 4 picocuries per liter).

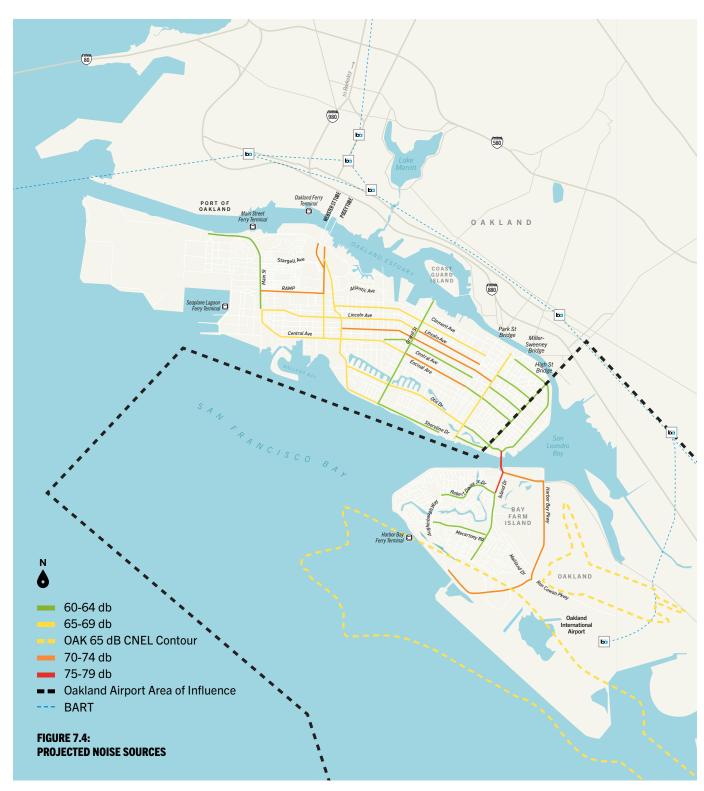
Action:

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.

7.6 NOISE + 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 Airport 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.

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The major sources of noise affecting Alameda are from the Oakland International Airport, BART lines, the railroad, the Port of Oakland, and local streets with faster moving vehicles.

Source: City of Alameda

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6 ALAMEDA GENERAL PLAN 2040 HEALTH + SAFETY ELEMENT



OBJECTIVE 6

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

POLICIES:

HS-41

Support Policies to Reduce Transportation Noise. Support state and federal legislation to reduce transportation noise from cars, trucks, and aircraft.

HS-42

Aircraft Noise Reductions. 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.

HS-43

Oakland International Airport Expansion and Settlement Agreement. Oppose any expansion of operations at Oakland International Airport that would negate or reduce the effectiveness of the noise abatement procedures established by the existing Settlement Agreements.

Action:

a. Monitoring and Assurance. Obtain assurance that the future noise exposure for Alameda is known and that aircraft operations will be controlled to ensure that the 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 by the Port of Oakland to ensure compliance with the California Airport Noise standards and the Airport Land Use Commission Plan.

HS-44

Single Event Noise Exposure. Work with Oakland International Airport to reduce the incidence of single event noise exposure above those currently experienced.

HS-45

Reduce Neighborhood Noise Impacts. Promote the reduction of existing and future potential harmful aircraft noise impacts in Alameda neighborhoods. (See also Policy LU-1 and ME-2).

Actions:

- a. Community Participation. Actively promote participation 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. Representation.** Seek local representation on all task forces, commissions and advisory boards established to guide airport policies and programs.

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- **c.** Adherence. Seek adherence by airport operators to operational, development and management policies that will minimize noise nuisance and safety concerns for Alameda.
- **d. North Field.** 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. Mitigation. 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. Noise Abatement. 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.

HS-46

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

Actions:

- a. Stage 3 and Stage 4 (least noisy) aircraft. Continue to only allow Stage 3 and 4 aircraft on all runways directly overflying Alameda residential areas.
- b. Flight path alterations for noise abatement. Continue to enforce 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. Touch-and-Go Operations.** Continue to prohibit touch and go operations by jet aircraft.
- **d. Noisy Engine Ground Run-Ups.** Continue to prohibit Ground Run-Ups outside of the Ground Run-Up Enclosure.
- **e.** Intersection Departures. Continue to prohibit intersection departures on Runway 28.



MEASURING NOISE

The volume or intensity of sound is measured in units called decibels (dB), generally on a scale from zero to 140.

The higher the number in decibels, the louder the noise. The louder the noise, the greater the risk of hearing loss. Hearing loss can occur with regular exposure to noise levels of 110 decibels or more for periods longer than one minute.

COMMON NOISES AND THEIR DECIBEL LEVELS:



AIRCRAFT AT TAKE-OFF: 180 DB



FIREWORKS: 140 DB



AMPLIFIED MUSIC: 110 DB



NOISY OFFICE: 90 DB



CITY TRAFFIC: 80 DB



NORMAL CONVERSATION: 60 DB



LEAVES RUSTLING: 10 DB

ALAMEDA GENERAL PLAN 2040 HEALTH + SAFETY ELEMENT



AIRPORT LAND USE COMMISSION

State law requires the establishment of airport land use commissions (ALUCs) at the county level. The main role of the ALUCs is to develop airport landuse plans (ALUPs) to advise cities and counties on the orderly expansion of public airports over a 20-year horizon and on minimizing land-use conflicts with surrounding areas over the issues of noise and building heights. Cities and counties must generally refer general plans, zoning ordinances and land-use development proposals near airports and heliports to the ALUC for determination of consistency with the ALUP. In Alameda County, the county's Community Development Agency acts as the ALUC, monitoring Oakland International Airport, Hayward Executive Airport and Livermore Municipal Airport; it last adopted an ALUP for the county in 1986.

HS-47

Noise Monitoring. 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 Community Noise Equivalent Level 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.

HS-48

Airport Land Use Compatibility Plan. Regulate land uses within the Oakland International Airport Influence Area, designated airport safety zones, height referral areas, and noise compatibility zones to minimize the possibility of future noise conflicts and accident hazards.

Actions:

- a. Land Use Safety and Compatibility. The City shall adopt by reference the Oakland International Airport Land Use Compatibility Plan (ALUCP) and shall review all development proposals east of High Street and all development proposals on Bay Farm Island (those areas within the Airport Influence Area designated in the ALUCP) for consistency with the height, safety, and noise policies identified in ALUCP Sections 3.3.2 Noise, 3.3.2 Safety and 3.3.3 Airspace Protection. The City shall further ensure compliance with all applicable Federal Aviation Administration rules and regulations, including federal aviation regulations Part 77 et seq., and State law, with respect to criteria related to land use safety and airspace protection.
- b. ALUC Referrals. For development in the Airport Influence Area, ensure that all actions listed in Section 2.6.2 of the ALUCP be referred to the Airport Land Use Commission for review prior to approval of the first discretionary action on the proposed project, or find, by a two-thirds vote of the City Council, that the proposed action is consistent with the purposes of Article 3.5 of Chapter 4 of the State Aeronautics Act, Public Utilities Code Section 21670 et seq.
- **c. Non-conforming Land Uses.** Limit the expansion and reconstruction of non-conforming land uses as described in Section 2.7.5.7 of the ALUCP.

COMMUNITY NOISE EXPOSURE



FIGURE 7.5: CALIFORNIA LAND USE COMPATIBILITY GUIDELINES

INTERPRETATION:

Normally Acceptable

Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Conditionally Acceptable

New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

Normally Unacceptable

New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Clearly Unacceptable

New construction or development should generally not be undertaken.





COMMUNITY NOISE EQUIVALENT LEVEL (CNEL)

Average noise exposure over a 24-hour period often is presented as a community noise equivalent level (CNEL). CNEL values are calculated from hourly equivalent noise level values, with a 5 dBA annoyance penalty added to the evening (7:00 p.m. to 10:00 p.m.) equivalent noise level values and a 10 dBA penalty added to the nighttime (10:00 p.m. to 7:00 a.m.) equivalent noise level values.

The settlement agreement as described in Policy HS-43 set Alameda's CNEL at 65dB for aircraft operations (See Figure 7-4 for Oakland Airport 65dB contour). 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 standard and the ALUC plan.

HS-49

Aircraft Crash Readiness. 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.

HS-50

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

HS-51

Ships. 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.

HS-52

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

HS-53

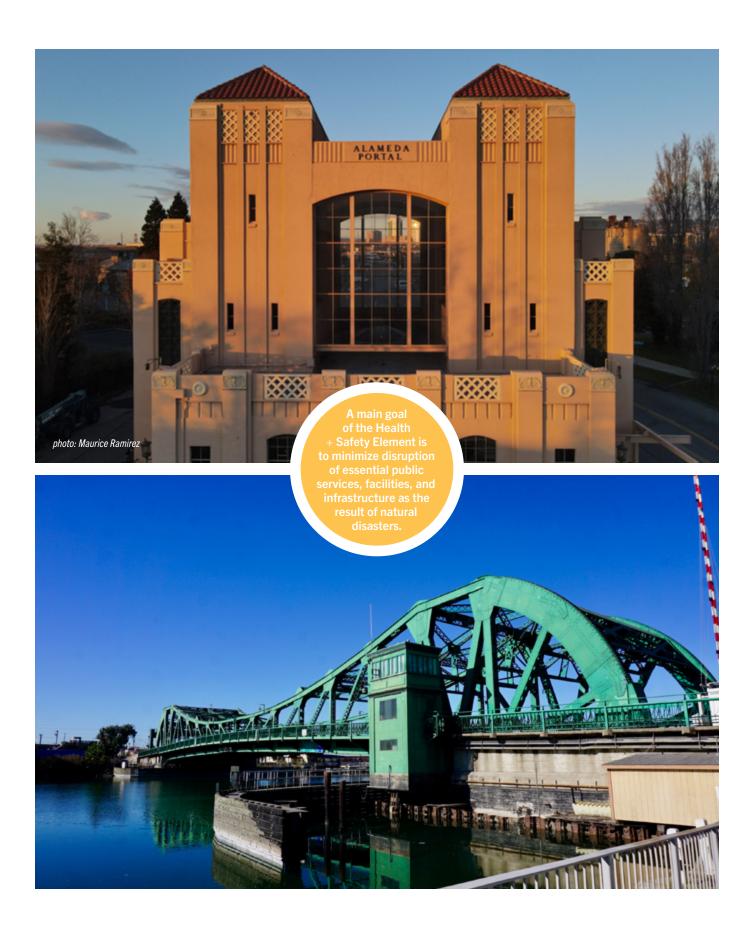
Streets. Where feasible and appropriate, develop and implement noise reduction measures when undertaking improvements, extensions or design changes to Alameda streets. (See also Policies LU-2, ME-10 and ME-14).

HS-54

Truck Routes. Maintain day and nighttime truck routes that minimize the number of residents exposed to truck noise. (See also Policy ME-11).

HS-55

Bay Farm Island Settlement Agreement. 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 Airport Land Use Commission Plan for assumed exterior 65 dB CNEL.



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HS-56

Interior Noise. Support interior noise reduction strategies in all buildings, especially new or replacement residential construction, hotels, motels, and schools to ensure acceptable interior noise levels consistent with Figure 7.5.

HS-57

Disclosure. 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 Alameda County Airport Land Use Commission (ALUC), commercial districts, truck routes, major arterials, Alameda Unified 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.

HS-58

Business Operations. 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.

HS-59

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 will be minimized.

HS-60

Significant CEQA Impacts. 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 day-night average sound level (Ldn) of 4 or more dBA if the resulting noise level would exceed that described as normally acceptable for the affected land use, as indicated by State guidelines, or any increase in Ldn of 6 dBA or more.

HS-61

Community Noise Ordinance. Continue to Enforce the Community Noise Ordinance by promptly responding to local noise complaints.

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7.7 AIR QUALITY

Located within a major urban metropolitan area, the most consistent pollution sources in Alameda are generated from car and truck traffic. Wildfire smoke has quickly become a regular seasonal issue during the warmer months and is made significantly worse by existing local sources of air pollution. Less significant sources of air pollution include wood smoke and construction related emissions. Every effort should be made to minimize these risks, especially to the most vulnerable populations such as children and seniors.



OBJECTIVE 7

Protect Alamedans from the harmful effects of air pollutants.

POLICIES:

HS-62

Wildfire Smoke. Prepare for future wildfire smoke events. (See also Policy CC-25).

Actions:

- a. **Shelters.** Work with local organizations and institutions to provide for public, clean air, temporary shelters, such as the Alameda Free Library, at locations throughout the City. (See also Policies CC-2 and CC-25).
- **b. Vulnerable Communities.** Strengthen protocols and procedures for identifying and notifying the most vulnerable residents to wildfire smoke of shelter locations and other potential support.
- **c.** *Indoor Air Quality.* Facilitate and expedite efforts by local property owners and businesses to improve indoor air quality and filtration systems. (See also Policy CC-13).
- **d. Outdoor Air Quality.** Continue to work with regional and local organizations and businesses to reduce local sources of air pollutants. (See also Policy CC-26).

HS-63

Diesel Emissions. Continue to work with the Bay Area Air Quality Management District (BAAQMD) to reduce diesel related air quality impacts throughout the region and in Alameda. (See also Policy CC-3).

Actions:

- **a. Government Vehicles.** Ensure a completed transition away from diesel fuels for all government operations and vehicles.
- **b.** Ban Diesel Vehicles by 2033. Set a date prior to 2033 to ban diesel vehicles from entering Alameda altogether, only allowing exceptions where no reasonable substitute exists.

HS-64

Wood Smoke. Adopt ordinances and regulations to reduce wood smoke in Alameda.

Actions

- **a. Wood Burning Fireplaces and Heaters.** Prohibit wood burning fireplaces and heaters in all new development and remodels.
- **b.** Incentives. Provide incentives to replace wood burning fireplaces and wood burning heating devices in existing buildings.
- **c.** Collaboration and Education. Continue to work with BAAQMD to reduce wood smoke and to raise awareness of the health effects of wood smoke.

HS-65

Construction Air Pollution. Protect public health by requiring best management practices at construction sites and carefully evaluating the potential health risks of projects that generate substantial toxic air contaminants or projects that propose to place a sensitive user in proximity to an existing source of contaminants.

Actions:

- **a. Construction Dust.** Reduce dust and harmful air pollutants resulting from construction activities by requiring compliance with best management practices (BMPs) as recommended by the Bay Area Air Quality Management District (BAAQMD).
- b. Health Risk Assessment. Require preparation of a Health Risk Assessment in accordance with policies and procedures of the State Office of Environmental Health Hazard Assessment and the BAAQMD. Adopt recommended health risk mitigations for projects that generate substantial toxic air contaminant (TAC) emissions within 1,000 feet of sensitive receptors or for sensitive receptor uses proposed to be located within 1,000 feet of an existing major source of toxic air contaminants.

HS-66

Air Quality Alerts. Continue to partner with BAAQMD to enhance awareness of air quality index alerts and related outreach and education to protect the health of residents.

HS-67

Aircraft Air Pollution. Work with federal, state, local agencies and the Port of Oakland to advocate for improvements in aviation technology and standards to reduce aviation air quality impacts. HS-68

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HS-68

Toxic Air Contaminants. Minimize and avoid exposure to toxic air contaminants.

Actions:

- a. New Sources. As a condition of approval, future discretionary projects that generate substantial toxic air contaminant (TAC) emissions (that are not regulated by the Bay Area Air Quality Management District (BAAQMD, such as construction activities lasting greater than two months or facilities that include more than 100 truck trips per day, 40 trucks with transport refrigeration units (TRUs) per day, or where TRU unit operations exceed 300 hours per week)) that are located within 1,000 feet of sensitive receptors shall submit a Health Risk Assessment (HRA) prepared in accordance with policies and procedures of the State Office of Environmental Health Hazard Assessment and the BAAQMD prior to discretionary project approval.. If the HRA shows that the incremental cancer risk, PM2.5 concentrations, or the appropriate non-cancer hazard index exceeds BAAQMD's project-level thresholds, then the applicant shall be required to identify and demonstrate that mitigation measures are capable of reducing potential PM2.5 concentrations, cancer risks, and non-cancer risks to below BAAQMD's project-level significance thresholds.
- b. New Sensitive Receptors. As a condition of approval, proposed new sensitive receptor uses proposed within 1,000 feet of existing major sources of toxic air contaminants (TACs) (e.g., permitted stationary sources, highways, freeways and roadways with over 10,000 annual average daily traffic (AADT)) shall submit a Health Risk Assessment (HRA) to the City prior to future discretionary project approval. If the HRA shows that the incremental cancer risk, PM2.5 concentrations, or the appropriate non-cancer hazard index exceeds BAAQMD's cumulative-level thresholds, then the applicant shall be required to identify and demonstrate that mitigation measures (e.g., electrostatic filtering systems) are capable of reducing potential cancer and noncancer risks to below BAAQMD's significance thresholds.

HS-69

Construction Period Air Quality Impacts. Minimize air quality impacts as the result of construction activities.

Action:

a. Construction Mitigations. As a condition of approval, future discretionary projects shall implement the following measures or equivalent, expanded, or modified measures based on project- and site-specific conditions: all exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered at least two times per day; all haul trucks transporting soil, sand, or other loose material off-site shall be covered; all visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping shall be prohibited; all vehicle speeds on unpaved roads shall be limited to 15 mph; all roadways, driveways, and sidewalks to be paved shall be completed as soon as possible; idling times shall be minimized either by shutting equipment off when not in use or reducing maximum idling time to 5 minutes; clear signage shall be provided for construction workers at all access points; all construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation; a publicly visible sign shall be posted with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours; and the Air District's phone number shall also be visible to ensure compliance with applicable regulations.

