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## *Vision*

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Palo Alto will meet today's needs without compromising the needs of future generations. Palo Alto will respect and manage natural resources in a way that sustains the natural environment and protects our foothills, baylands, creeks, parks, wildlife and open space legacy. The competing needs of residents and businesses will be prioritized so that neighborhoods are protected from traffic impacts, parking intrusion, noise, and pollution, while business districts are competitive and attractive. A substantial portion of the City will remain as open space. Even in built-up areas, a network of parks will provide access to nature and an urban forest will provide ecological benefits and a source of beauty for residents. Palo Alto will strive for cleaner air and cleaner water. Its policies and programs will foster energy and water conservation, maintain a sustainable water supply for the future, and facilitate the implementation of climate change adaptation strategies. .

## **INTRODUCTION**

The Natural Environment Element addresses the management of open land and natural resources in Palo Alto and the protection of life and property from natural hazards. It is one of the broadest elements of the Comprehensive Plan, encompassing four of the seven elements mandated by the State. The Element satisfies the State requirement for an Open Space Element by including policies describing the use of open space for the preservation of natural resources, the managed production of natural resources, outdoor recreation, and public health and safety. It satisfies the State requirement for a Conservation Element by including policies pertaining to creeks and riparian areas, wetlands, the urban forest, water resources, wildlife, air quality, hazardous materials, solid waste disposal, and energy. It satisfies the State requirement for a Safety Element through policies describing how exposure to natural hazards like earthquakes and fires will be reduced. Finally, it satisfies the Noise Element requirement through policies that reduce exposure to undesirable levels of noise in the community.

The remainder of the Element consists of goals, policies, and programs. The text is organized into ten topics, each with a corresponding goal. Background information on each topic is included following the goal statements. It should be noted that the Natural Environment Element does not include policies relating to mineral resources because Palo Alto does not contain any mineral deposits of regional significance.

## 1. OPEN SPACE

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### **GOAL N-1. A Citywide Open Space System that Protects, Conserves and Enhances Palo Alto's Natural and Urban Habitats, Ecosystems, and Natural Resources, Providing a Source of Beauty and Enjoyment for Palo Alto Residents.**

POLICY N1.1      Manage existing public open space areas and encourage the management of private open space areas including agricultural land, golf courses, and land that provides habitat for wildlife in a manner that protects habitat and meets wildlife protection goals. [Previous Policy N-1, per PTC] [N1]

*Program N1.1.1    Continue to review and update as needed the Open Space (OS) zoning district regulations to ensure consistency with Comprehensive Plan policies. [Previous Program N-1, per PTC] [N2]*

*Program N1.1.2    Examine and improve existing management practices including the provision of access to open space for City vehicles and equipment, to ensure that natural resources are protected. [Previous Program N-2] [N3]*

POLICY N1.2      Carefully manage access and use in environmentally sensitive areas, including the baylands, foothills and riparian corridors to ensure that the habitat and sensitive wildlife are protected. [previous Program N-3, per PTC] [NEW POLICY] [N4]

POLICY N1.3      Protect sensitive habitats and wildlife from the impacts of humans and nuisance animals. [PTC] [NEW POLICY] [N5]

*Program N1.3.1    Protect wildlife in City Parks and open space areas by improving litter collection, restricting the use of non-recyclable plastics, and prohibiting the feeding of wild animals. [PTC] [NEW PROGRAM] [N6]*

POLICY N1.4      Support regional and sub-regional efforts to acquire, develop, operate, and maintain an open space system including land linkages and trail connections extending from Skyline Ridge to San Francisco Bay. [Previous Policy N-2] [N7]

*Program N1.4.1    Prioritize City funding, and seek additional sources of funding, including State and Federal programs, to finance open space*

*acquisition, maintenance and conservation. [Previous Program N-4] [N8]*

*Program N1.4.2 Work with Stanford University, Santa Clara County, Santa Clara Valley Water District and regional organizations to create multi-use trail connections between urban areas and open space including creeks and rights-of-way. [PTC] [NEW PROGRAM] [N9]*

POLICY N1.5 Protect sensitive plant species resources from the impacts of development. [Previous Policy N-3] [N10]

*Program N1.5.1 Incorporate bird-safety features into the design of new public infrastructure and private development, in order to minimize bird collisions with windows and other man-made structures.[PTC] [NEW PROGRAM] [N11]*

*Program N1.5.2 Work cooperatively with environmental groups dedicated to the welfare of birds in Palo Alto. [PTC] [NEW PROGRAM] [N12]*

POLICY N1.6 Pursue opportunities to restore, enhance and expand habitat for endangered species and native plants. [PTC] [NEW POLICY] [N13]

*Program N1.6.1 Maintain wetlands as a habitat for endangered species and plants by insuring adequate flow from the Bay and appropriately treated plant effluent flow to areas adjacent to Byxbee Park specifically, the Renzel Marsh and ITT Marsh. [PTC] [NEW PROGRAM] [N14]*

*Program N1.6.2 Improve existing management and community practices to protect native wildlife and natural animal habitats in open space. [PTC] [NEW PROGRAM] [N15]*

POLICY N1.7 Preserve, protect and enhance public and private open space and eco-systems of Palo Alto from the foothills to the baylands. [Previous Policy N-4] [N16]

*Program N1.7.1 Fund, develop and implement Comprehensive Resource Conservation Plans for the Baylands, Pearson Arastradero Preserve, and Foothills Park to guide our stewardship and protection of native vegetation, wildlife and habitat, and human and domestic animal activities in sensitive areas. [PTC] [NEW PROGRAM] [N17]*

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## NATURAL ENVIRONMENT ELEMENT

*Program N1.7.2 Work to maintain Williamson Act contracts within the City.  
[Previously Program N-5] [N18]*

POLICY N1.8 Preserve Stanford's lower foothill property predominantly within the City, and act as an advocate to Santa Clara County to preserve the open space link between Stanford, the urban area, and the foothills. [Previous Policy N-5] [N19]

*Program N1.8.1 As part of the design review process for proposed development in the Open Space zone district that exceeds 6,500 square feet, require that "story poles" be erected with outlining tape depicting the building's location, bulk and height to aid in assessing the potential visual impacts of the proposed project. [Previous Program N-6] [N20]*

POLICY N1.9 All development in the foothill portion of the Planning Area (i.e., above Junipero Serra Boulevard) should be consistent with the following criteria:

- City of Palo Alto Open Space Development Criteria
  - The development should not be visually intrusive from public roadways and public parklands. As much as possible, development should be sited so it is hidden from view.
  - Development should be located away from hilltops and designed to not extend above the nearest ridge line.
  - Site and structure design should take into consideration impacts on privacy and views of neighboring properties.
  - Development should be clustered, or closely grouped, in relation to the area surrounding it to make it less conspicuous, minimize access roads, and reduce fragmentation of natural habitats.
  - Built forms and landscape forms should mimic the natural topography. Building lines should follow the lines of the terrain, and trees and bushes should appear natural from a distance.
  - Existing trees with a circumference of 37.5 inches, measured 4.5 feet above the ground level, should be preserved and integrated into the site design. Existing vegetation should be retained as much as possible.
  - Cut is encouraged when it is necessary for geotechnical stability and to enable the development to blend into the natural topography. Fill is generally discouraged and should never be distributed within the driplines of existing trees. Locate development to minimize the need for grading.
  - To reduce the need for cut and fill and to reduce potential runoff, large, flat expanses of impervious surfaces should be avoided.
  - Buildings should use natural materials and earth tone or subdued colors.

- Landscaping should be native species that require little or no irrigation. Immediately adjacent to structures, fire retardant plants should be used as a fire prevention technique.
- Exterior lighting should be low-intensity and shielded from view so it is not directly visible from off-site.
- Access roads should be of a rural rather than urban character. (Standard curb, gutter, and concrete sidewalk are usually inconsistent with the foot- hills environment.)
- For development in unincorporated areas, ground coverage should be in general conformance with Palo Alto's Open Space District regulations.

[Previous Policy N-7] [N21]

POLICY N1.10 Preserve and protect the Bay, marshlands, salt ponds, sloughs, creeks, and other natural water or wetland areas as open space and functioning habitat. [Previous Policy N-8] [N22]

POLICY N1.11 In managing public lands and easements consider public safety concerns and provide limited low impact recreation opportunities where they are compatible with established conservation goals. [PTC] [NEW POLICY] [N23]

*Program N1.11.1 Review and map existing easements and maintenance roads for potential trails and trail connections. [PTC] [NEW PROGRAM] [N24]*

*Program N1.11.2 Implement the Foothills Fire Management Plan to balance conservation of natural resources with reduction of fire hazards especially in open space areas. [PTC] [NEW PROGRAM] [N25]*

## **2. CREEKS AND RIPARIAN AREAS**

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### **GOAL N-2. Conservation of Creeks and Riparian Areas as Open Space Amenities, Natural Habitat Areas, and Elements of Community Design.**

POLICY N2.1 Preserve and restore the integrity of riparian corridors in order to provide viable habitat for fish, birds, and other wildlife, and encourage the replacement of invasive, non-native plants with native plants. [PTC] [NEW POLICY] [N26]

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## NATURAL ENVIRONMENT ELEMENT

*Program N2.1.1 Provide incentives and eliminate barriers where possible to encourage restoration on privately owned creek banks. [PTC] [NEW PROGRAM] [N27]*

*Program N2.1.2 Require new development projects to use low impact development techniques and green stormwater infrastructure to filter, store and reuse runoff, and decrease runoff flows. [PTC] [NEW PROGRAM] [N28]*

*Program N2.1.3 Minimize the amount of impervious surfaces by reducing surface parking lots. [NEW PROGRAM] [N29]*

POLICY N2.2 Avoid fencing, piping, and channelization of creeks when flood control and public safety can be achieved through measures that preserve the natural environment and habitat of the creek. [Previous Policy N-9] [N30]

POLICY N2.3 Work with the Santa Clara Valley Water District, San Francisquito Creek Joint Powers Authority and other relevant regional and non-governmental agencies to enhance riparian corridors, provide compatible low impact recreation, and ensure adequate flood control by use of low impact restoration strategies. [Previous Policy N-10] [N31]

*Program N2.3.1 Allow passive or intermittent outdoor activities and pedestrian, equestrian, and bi-cycle pathways where there are adequate setbacks to protect the natural riparian environment. [Previous Program N-7] [N32]*

*Program N2.3.2 Develop and adopt a creek ordinance that establishes new development regulations for properties abutting creeks, establishes an exception process, and provides incentives to achieve maximum creek setbacks, such as reduced front yard setbacks and reduced on-site parking requirements. [Previous Program N-8] [N33]*

*Program N2.3.3 Participate cooperatively in the San Francisquito Creek Joint Powers Authority (JPA) to achieve increased flood protection, habitat preservation, enhancement and improved recreational opportunities along San Francisquito Creek. [Previous Program N-9] [N34]*

*Program N2.3.4 Partner with appropriate agencies to consider the issue of how flood zones may need to be expanded as a result of sea level rise or of changes in creek channels due to increased*



*likelihood of extreme storm events caused by climate change.  
[PTC] [NEW PROGRAM] [N35]*

POLICY N2.4 Promote the stream protection goals of the Countywide Water Resources Protection Collaborative by reviewing and updating the Stream Corridor Protection ordinance to expand its applicability and scope. [PTC] [NEW POLICY] [N36]

*Program N2.4.1 Periodically review and revise the Stream Corridor Protection ordinance as needed to ensure its original goals are being achieved. [PTC] [NEW PROGRAM] [N37]*

*Program N2.4.1 Work with the Santa Clara Valley Water District to develop a comprehensive riparian corridor restoration and enhancement program that identifies specific stretches of corridor to be restored, standards to be achieved, and sources of funding. Include provisions for tree planting to enhance natural habitat. [Previous Program N-11] [N38]*

Stronger & more targeted “erosion prevention, control & correction” policy needed, per SB 379

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### 3. URBAN FOREST

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#### GOAL N-3. A Thriving “Urban Forest” That Provides Ecological, Economic, and Aesthetic Benefits for Palo Alto.

POLICY N3.1 Use the Urban Forest Master Plan as the guiding document for all City decisions related to Palo Alto’s urban forest.[PTC] [NEW POLICY] [N39]

*Program N3.1.1 Periodically update the Urban Forest Master Plan and the City of Palo Alto’s Tree Protection Ordinance to ensure policies and regulations remain relevant. [PTC] [NEW PROGRAM] [N40]*

POLICY N3.2 Protect, revitalize, and expand Palo Alto’s urban forest through public education, sensitive regulation, and a long-term financial commitment that is adequate to protect this resource to achieve environmentally sustainable goals. [Previous Policy N-14] [N41]

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## NATURAL ENVIRONMENT ELEMENT

- Program N3.2.1 Continue working with environmental organizations and individuals dedicated to planting and protecting trees in Palo Alto. [PTC] [NEW PROGRAM] [N42]*
- Program N3.2.2 Provide on-going education for City staff, homeowners, and developers regarding landscape, maintenance, and irrigation practices that protect the urban forest and bird species. [PTC] [NEW PROGRAM] [N43]*
- Program N3.2.3 Develop a formal program for the use of City's Urban Forestry Fund for replacement of trees. Establish a program to have replacement trees planted offsite when it is impractical to locate them onsite. [Previous Program N-16] [N44]*
- Program N3.2.4 Develop and implement a plan for maintenance, irrigation, and augmentation or replacement of trees in parks, parking lots, and City rights-of-way, as well as parks and open space where ecologically appropriate. [Previous Program N-17] [N45]*
- Program N3.2.5 Actively pursue funds to establish one or more tree planting programs that seek to achieve the objective of 50 percent tree canopy cover for streets, parks, and parking lots where ecologically appropriate. Review existing tree planting guidelines to ensure they achieve this objective. [Previous Program N-18] [N46]*
- Program N3.2.6 Increase the ecological value of the urban forest by enhancing the number and diversity of native tree species and reducing the number of invasive tree species. [PTC] [NEW PROGRAM] [N47]*

POLICY N3.3 Protect and enhance the urban forest along El Camino Real and work towards its preservation. [PTC] [NEW POLICY] [N48]

- Program N3.3.1 Continue to work cooperatively with the Palo Alto Unified School District and Stanford University to ensure that their tree planting and maintenance practices are consistent with City guidelines. [N49]*

POLICY N3.4 Preserve and protect Regulated Trees, including heritage trees and protected trees, public trees and designated landscape trees on public and private property. [Previous Program N-21] [N50]

*Program N3.4.1 Develop policies, incentives, and education to increase carbon benefits of the urban forest. Utilize carbon protocols or credit programs that purchase from local sources where possible even if local credits are more expensive. [NEW PROGRAM] [N51]*

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## 4. WATER RESOURCES

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### GOAL N-4. Water Resources that are Prudently Managed to Sustain Plant and Animal Life, Support Urban Activities, and Protect Public Health and Safety.

POLICY N4.1 Facilitate and promote the use of recycled or reclaimed water whenever safe and appropriate. [NEW POLICY] [N52]

#### 4.1 GROUNDWATER

POLICY N4.2 Support the Santa Clara Valley Water District as needed to implement their mandate to protect groundwater from the adverse impacts of urban uses. [Previous Policy N-18] [N53]

*Program N4.2.1 Work with the Santa Clara Valley Water District to identify and map key groundwater recharge and stormwater management areas for use in land use planning and permitting and the protection of groundwater resources. [Previous Program N-22] [N54]*

*Program N4.2.2 Work with other neighboring jurisdictions and communities to protect ground water. [PTC] [NEW PROGRAM] [N55]*

POLICY N4.3 Conservation and efficient use of water by all customers shall be encouraged through a diverse portfolio of education, rebates, assistance programs, and building requirements. [PTC] [NEW POLICY] [N56]

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## NATURAL ENVIRONMENT ELEMENT

*Program N4.3.1 Maintain cost-effective citywide water conservation and efficiency programs for all customers, including low income customers. [Previous Program N-24] [N57]*

POLICY N4.4 Secure a reliable, long-term supply of water for Palo Alto, including enhancing our emergency storage and supply system. [Previous Policy N-19] [N58]

*Program N4.4.1 Investigate ways to reuse non-traditional water sources including recycled, gray, black and stormwater. [NEW PROGRAM] [N59]*

*Program N4.4.2 Regularly review the water rate structure to ensure that it covers fixed costs based on cost of service studies and encourages conservation and efficiency. [Previous program N-23] [N60]*

POLICY N4.5 Encourage residential and commercial property owners to conserve water by modeling best practices including replacing inefficient plumbing fixtures in buildings, installing drought tolerant landscape and harvesting rainwater. [NEW POLICY] [N61]

*Program N4.5.1 Educate customers on efficient water use (indoor and outdoor), tree care, and landscaping options. [NEW PROGRAM] [N62]*

*Program N4.5.2 Promote the use of salt-tolerant native species and require separate irrigation systems that can accept recycled water for landscape irrigation for larger developments. [PTC] [Previous Program N-26] [N63]*

POLICY N4.6 Improve source control and treatment of recycled water to maximize its use. [PTC] [NEW POLICY] [N64]

## 4.2 STORMWATER

POLICY N4.7 Reduce pollution in urban runoff from residential, commercial, industrial, municipal, and transportation land uses and activities. [Previous Policy N-21] [N65]

*Program N4.7.1 Work with regulatory agencies, environmental groups, affected businesses, and other stakeholders to identify economically viable Best Management Practices (BMPs) for reducing pollution. Participate in BMPs pilot studies to*

*identify new pollution control measures. [Previous Program N-27] [N66]*

*Program N4.7.2 Continue public education programs on water quality issues, including Best Management Practices (BMPs) for residents, businesses, contractors, and City employees. [Previous Program N-28] [N67]*

*Program N4.7.3 Actively participate in programs such as the Santa Clara Valley Urban Runoff Pollution Prevention Program to improve the quality of storm water runoff. [Previous Program N-29] [N68]*

*Program N4.7.4 Conduct regular street-sweeping to collect trash and road surface pollutants before they enter stormwater runoff. [Previous Program N-30] [N69]*

*Program N4.7.5 Evaluate spill response, cleanup, and follow-up investigation procedures to reduce the impacts of toxic spills on water quality in the City's creeks and San Francisco Bay. [Previous Program N-31] [N70]*

*Program N4.7.6 Manage stormwater runoff in compliance with the Municipal Regional Stormwater permit. [NEW PROGRAM] [N71]*

POLICY N4.8 Retain and utilize rainwater on site to the extent possible. Use native or simulated natural drainage systems for buffers and filtration to the extent possible. [NEW POLICY] [N72]

*Program N4.8.1 Develop and implement a green stormwater infrastructure plan with the goal to treat and infiltrate stormwater. [NEW PROGRAM] [N73]*

POLICY N4.9 Limit the amount of impervious surface in new development or public improvement projects to reduce urban runoff into storm drains, creeks, and San Francisco Bay. [Previous Policy N-22] [N74]

*Program N4.9.1 Promote the use of permeable paving materials that allow for natural percolation and site drainage through a Storm Water Rebate Program and other incentives. [Previous Program N-34] [N75]*

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## NATURAL ENVIRONMENT ELEMENT

*Program N4.9.2 Promote landscape design that optimizes soil volume, porosity, structure, health, and configuration. [NEW PROGRAM] [N76]*

POLICY N4.10 Improve storm drainage performance by constructing new system improvements where necessary and replacing undersized or otherwise inadequate lines with larger lines or parallel lines. [Previous Policy N-24] [N77]

*Program N4.10.1 Complete improvements to the storm drainage system consistent with the priorities outlined in the City's 1993 Storm Drainage Master Plan. [Previous Program N-36] [N78]*

POLICY N4.11 Promote the inclusion of Low Impact Development (LID) measures such as rainwater harvesting and storm runoff infiltration in private developments and public improvement projects, when feasible, as required by the City's storm water discharge permit. [PTC] [NEW POLICY] [N79]

POLICY N4.12 Maintain and improve implementation of the City's Integrated Pest Management Policy with periodic assessments of pesticide use and use of Best Management Practices to reduce pesticide applications and toxicity, and maximize non-chemical control. [PTC] [NEW POLICY] [N80]

*Program N4.12.1 Continue promoting sustainable low impact landscaping practices. [PTC] [NEW PROGRAM] [N81]*

## 4.3 WASTEWATER TREATMENT

POLICY N4.13 Reduce the discharge of toxic materials into the City's sanitary sewer collection system by promoting the use of Best Management Practices and reducing pollutant levels in City wastewater discharges. [Previous Policy N-25] [N82]

*Program N4.13.1 Continue to educate residents on the proper disposal of pharmaceutical and household hazardous waste. [NEW PROGRAM] [N83]*

*Program N4.13.2 Work with commercial and industrial dischargers to identify and implement pollution prevention measures and Best Management Practices to eliminate or reduce the discharge of metals and other pollutants of concern. [Previous Program N-35] [N84]*

*Program N4.13.3 Provide incentives to encourage commercial dischargers to consistently go beyond minimum requirements of the Clean Bay Business Program. [PTC] [NEW PROGRAM] [N85]*

*Program N4.13.4 Continue public education programs on water quality issues, including Best Management Practices for residents, businesses, contractors, and City employees. [PTC] [NEW PROGRAM] [N86]*

POLICY N4.14 Provide, maintain, and operate wastewater treatment facilities, including maintaining adequate capacity at the Regional Water Quality Control Plant located in Palo Alto to accommodate projected economic and population growth. Ensure that the plant operates in compliance with applicable local, State, and Federal clean water, clean air, and health and safety regulatory requirements. [PTC] [NEW POLICY] [N87]

*Program N4.14.1 implement approved recommendations based on the Long-Term Facilities Plan prepared for the Regional Water Quality Control Plant. [PTC] [NEW PROGRAM] [N88]*

## 5. AIR QUALITY

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### GOAL N-5. Clean, Healthful Air for Palo Alto and the San Francisco Bay Area.

POLICY N5.1 Support regional, state, and federal programs that improve air quality in the Bay Area.[Previous Policy N-26] [N89]

*Program N5.1.1 Provide City input on significant proposals for air quality legislation and state implementation plans. [Previous Program N-38] [N90]*

*Program N5.1.2 Assist the Bay Area Air Quality Management District (BAAQMD) in its efforts to achieve compliance with existing air quality regulations by requiring development applicants to comply with current BAAQMD construction emissions control measures, or incorporate appropriate mitigation [N91]*

*Program N5.1.3 PROGRAM N-40: Expand the use of alternative fuels for City vehicles and establish a program to encourage expanded use*

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## NATURAL ENVIRONMENT ELEMENT

*of such fuels in private vehicles. [Previous Program N-39]  
[N92]*

*Program N5.1.4 Support legislative programs that result in the removal of the oldest and dirtiest vehicles on the roadway. [Previous Program N-41] [N93]*

POLICY N5.2 Reduce emission of particulates from wood burning stoves, construction activity, automobiles, and other sources. [Previous Policy N-27] [N94]

*Program N5.2.1 Prohibit new indoor wood-burning stoves or fireplaces, and require wood-burning stoves or fireplace inserts to comply with EPA- approved standards. [Previous Program N-42] [N95]*

*Program N5.2.2 Provide homeowners with information outlining low emission alternatives to wood-burning stoves and fireplaces. [Previous Program N-43] [N96]*

*Program N5.2.3 Provide incentives for homeowners to replace wood-burning fireplaces with gas-burning fireplaces based on Cal Green code specifications, and natural gas powered appliances with electric appliances. [PTC] [NEW PROGRAM] [N97]*

*Program N5.2.4 Recommend revisions to proposed projects as needed to reduce air quality impacts, including improvements that reduce single occupant vehicle use. [Previous Program N-45] [N98]*

POLICY N5.3 All potential sources of odor and/or toxic air contaminants should be adequately buffered, or mechanically or otherwise mitigated to avoid odor and toxic impacts that violate relevant human health standards. [Previous Policy N-29] [N99]

POLICY N5.4 Reduce air pollution and airborne dust by maintaining tree canopy size targets for parking lots and streets. [PTC] [NEW POLICY] [N100]



## 6. HAZARDOUS WASTE

### GOAL N-6. An Environment Free of the Damaging Effects of Biological and Chemical Hazardous Materials.

- POLICY N6.1 Discourage the use of toxic and hazardous materials. Promote the use of alternative materials and practices that are environmentally benign. [Previous Policy N-30] [N101]
- Program N6.1.1 Continue to provide information to the public regarding commonly used hazardous materials, environmentally preferable alternatives, and safe recycling and disposal practices to all user groups. [Previous Program N-46] [N102]*
- Program N6.1.2 Continue City permitting procedures for commercial and industrial storage, use, and handling of hazardous materials. [Previous Program N-47] [N103]*
- Program N6.1.3 Continue providing regular household hazardous waste collection events at the Palo Alto Regional Water Quality Control Plant and strive to make these programs more convenient and accessible to residents. [Previous Program N-48] [N104]*
- Program N6.1.4 Continue the program that allows small quantity generators to dispose of hazardous waste at cost. [Previous Program N-50] [N105]*
- POLICY N6.2 Continue working with appropriate agencies to clean up hazardous waste sites and contaminated groundwater. [N106]
- POLICY N6.3 Support public agency policies, regulations, legislation, and programs that implement Santa Clara County’s Hazardous Materials Management Program. [Previous Policy N-32] [N107]
- POLICY N6.4 Protect City authority for the approval or denial of proposed commercial hazardous waste treatment, storage, or disposal facilities in the City. Continue to support the concept of “fair share” agreements between counties in the siting of such facilities. [Previous Policy N-33] [N108]

## 7. SOLID WASTE

### GOAL N-7. Reduced Volumes of Solid Waste; Solid Waste Disposed in an Environmentally Safe, Efficient, Manner.

POLICY N7.1 Eliminate solid waste disposal to landfills or incinerators by reducing the amount of waste generated, promoting reuse and maximizing recycling and composting. [Previous Policy N-34] [N109]

Could replace Policy N-34 with S/CAP Strategy SW-1: Achieve 95% landfill diversion by 2030, and ultimately zero waste, by enhancing policies and programs for recycling, composting and reuse.

*Program N7.1.1 Encourage residential and commercial food waste reduction through incentives, educational outreach and programs. [PTC] [NEW PROGRAM] [N110]*

*Program N7.1.2 To the extent allowed by law, use refuse rate structures that incentivize waste reduction. [Previous Program N-51] [N111]*

*Program N7.1.3 Continue to promote composting. Consider extending composting to include food wastes. [Previous Program N-52] [N112]*

*Program N7.1.4 Continue to develop and improve recycling and composting programs for all waste generators. [Previous Program N-53] [N113]*

*Program N7.1.5 Continue to develop long-term solid waste management programs that include environmentally sound disposal methods, composting and other organics processing alternatives, and environmentally responsible recycling programs. [Previous Program N-54] [N114]*

POLICY N7.2 Reduce solid waste generation through salvage and reuse of building materials, including architecturally and historically significant materials. [Previous Policy N-35] [N115]

*Program N7.2.1 Periodically review and update the adopted Construction and Debris program. [PTC] [NEW PROGRAM] [N116]*

*Program N7.2.2 Educate Palo Alto residents and developers about available incentives to use environmental friendly deconstruction*

*activities to minimize our carbon footprint, to save natural resources, as well as space in our landfills. [PTC] [NEW PROGRAM] [N117]*

- POLICY N7.3 Support state and federal legislation encouraging the use of recyclable and recycled content goods. [Previous Policy N-38] [N118]
- POLICY N7.4 Continue to implement the City’s Environmentally Preferred Purchasing policy and programs to reduce waste, toxic product use, resource consumption and to maximize energy efficiency. [PTC] [NEW POLICY] [N119]
- POLICY N7.5 Encourage the use of reusable, returnable, recyclable, and repairable goods, and discourage the use of single use plastic water bottles, through incentives, educational displays and activities, and City purchasing policies and practices. [Previous Policy N-36] [N120]

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## 8. NOISE

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### GOAL N-8. An Environment That Minimizes the Adverse Impacts of Noise.

#### 8.1 INTERIOR AND EXTERIOR NOISE

- POLICY N8.1 Encourage the location of land uses in areas with compatible noise environments. Use the guidelines in Table “N-XX” to evaluate the compatibility of proposed land uses with existing noise environments when preparing, revising, or reviewing development proposals. Acceptable exterior, interior and ways to discern noise exposure include:
- For exterior noise, the guideline for “normally acceptable” noise levels in residential areas is an Ldn of 60 dB. This level is a guideline for the design and location of future development and a goal for the reduction of noise in existing development. However, 60 Ldn is a guideline which cannot necessarily be reached in all residential areas within the constraints of economic or aesthetic feasibility. This guideline will be primarily applied where outdoor use is a major consideration (e.g., backyards in single family housing developments, and recreational areas in multiple family housing projects). Where the City determines that providing an Ldn of 60 dB or lower outdoors is not feasible, the noise level in outdoor areas intended for recreational use should be reduced to as close to the standard as feasible through project design.

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## NATURAL ENVIRONMENT ELEMENT

- For interior noise, the requirements of the State of California Building Standards Code (Title 24) and Noise Insulation Standards (Title 25) must not exceed an Ldn of 45 dB in all habitable rooms of all new dwelling units.
- Noise exposure(s) can be determined from (a) the noise contour map included in this plan, (b) more detailed noise exposure studies, or (c) on area-specific or project-specific noise measurements, as appropriate.

[Previous Policy N-39] [N121]

POLICY N8.2 For all future residential projects greater than four dwelling units that are proposed to be within the 65 dBA Ldn noise contours, as depicted on current Comprehensive Plan mapping, an acoustical analysis shall be submitted to the City as part of the entitlement review application. Such projects shall include appropriate layout, structural, and/or architectural design features to ensure meeting the interior noise standards of the City and State codes. [NEW POLICY] [N122]

POLICY N8.3 Encourage the application of site planning and architectural design techniques that reduce overall noise pollution and reduce noise impacts on proposed and existing projects within Palo Alto and surrounding communities. [Previous Policy N-40] [N123]

POLICY N8.4 When a proposed project is subject to CEQA, the noise impact of the project on existing residential land uses should be evaluated in terms of the increase in existing noise levels and potential for adverse community impact, regardless of existing background noise levels. If an area is below the applicable maximum noise guideline, an increase in noise up to the maximum should not necessarily be allowed. A project should be considered to cause a significant degradation of the noise environment if it meets any of the following criteria:

- In residential areas in which the existing Ldn is below 60 dBA, a proposed project would cause the Ldn to increase by 5.0 dB or more AND the Ldn remained below 60 dBA;;
- In residential areas in which the existing Ldn is below 60 dBA, a proposed project would cause the Ldn to increase by 3.0 dB or more AND would also cause the Ldn in the area to exceed 60 dBA;;

In residential areas in which the existing Ldn is currently above 60 dBA, a proposed project would cause the Ldn to increase by 3.0 dB or more. [???] [N124]

POLICY N8.5 The City may require measures to reduce noise impacts of development on adjacent properties through appropriate means including, but not limited to, the following:

- Orient buildings to shield noise sensitive outdoor spaces from sources of noise.

- Construct noise walls when other methods to reduce noise are not practical..
- Screen and control noise sources such as parking lots, outdoor activities and mechanical equipment.
- Increase landscaped setbacks to serve as a buffer between noise sources and adjacent dwellings.
- Whenever possible, retain fences, walls or landscaping that serve as noise buffers while balancing these measures related to design, safety and other impacts.
- Use soundproofing materials, noise reduction construction techniques, and/or acoustically rated windows/doors.
- Control hours of operation, including deliveries and trash pickup, to minimize noise impacts.

[Previous Policy N-41] [N125]

POLICY N8.6 Protect the overall community and especially sensitive noise receptors, including schools, hospitals, convalescent homes, and senior care facilities, from unacceptable noise levels from both existing and future noise sources. [Previous Policy N-43] [N126]

*Program N8.6.1 Continue working to reduce noise impacts created by events and activities taking place in communities adjoining Palo Alto. [Previous Program N-58] [N127]*

*Program N8.6.2 Evaluate the feasibility of adopting noise criteria in the purchase of new City vehicles and equipment. [Previous Program N-59] [N128]*

*Program N8.6.3 Evaluate and update the Noise Ordinance, as needed, to provide for clear interpretation of the regulations, to review the appropriateness of existing standards, and to ensure that regulations address contemporary issues [???] [N129]*

*Program N8.6.4 PROGRAM N-61: Evaluate changes to the Noise Ordinance to reduce the impact of leaf blower noise. [Previous Program N-60] [N130]*

## 8.2 TRANSPORTATION NOISE—ROADWAYS

POLICY N8.7 Whenever practical, install pavement surfaces that reduce noise from vehicular travel on roadways. [PTC] [NEW POLICY] [N131]

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## NATURAL ENVIRONMENT ELEMENT

POLICY N8.8 Minimize roadway noise through prudent street, flow, and right-of-way design including reducing speed limits along high-volume arterials and reducing points of acceleration in noise-sensitive areas. [PTC] [NEW POLICY] [N132]

### 8.3 TRANSPORTATION NOISE—AIRWAY

POLICY N8.9 Ensure compliance with the airport related land use compatibility standards for community noise environments, shown in Table N-XX, by prohibiting incompatible land use development within the 60 dBA CNEL noise contours of the Palo Alto airport. [NEW POLICY] [N133]

*Program N8.9.1 Continue working to reduce noise associated with operations of the Palo Alto Airport. Ensure compliance with the land use compatibility standards for community noise environments, shown in Table N-XX, by prohibiting incompatible land use development within the 60 dBA CNEL noise contours of the airport. [PTC] [NEW PROGRAM] [N134]*

*Program N8.9.2 Participate in appropriate public forums to ensure that future activities at large commercial airports in the region do not negatively affect noise levels in Palo Alto. [Previous Program N-56] [N135]*

### 8.4 TRANSPORTATION NOISE—RAILWAY

POLICY N8.10 Minimize noise spillover from rail related activities into adjacent residential or noise-sensitive areas. [NEW POLICY] [N136]

*Program N8.10.1 Encourage the Peninsula Corridors Joint Powers Board to pursue technologies and grade separations that would reduce or eliminate the need for train horns/whistles in communities served by rail service. [???] [N137]*

*Program N8.10.2 NEW PROGRAM: Evaluate changing at-grade rail crossings so that they qualify as Quiet Zones based on Federal Railroad Administration (FRA) rules and guidelines in order to mitigate the effects of train horn noise without adversely affecting safety at railroad crossings. [PTC] [Previous Program N-57] [N138]*

POLICY N8.11 Reduce impacts from noise and ground borne vibrations associated with rail operations by requiring that future habitable buildings are located at least 100

feet from the centerline of the tracks whenever feasible, and utilize structural design to keep interior noise levels below 45 dBA Ldn and ground-borne vibration levels below 72 VdB. [NEW POLICY] [N139]

Note that noise & vibration associated with future High Speed Rail are addressed in Transportation Policy T-3.19: *Improve safety and minimize adverse noise, vibrations and visual impacts of operations in the Caltrain rail corridor on adjoining districts, public facilities, schools and neighborhoods with or without the addition of High Speed Rail.*

## 8.5 CONSTRUCTION NOISE

- POLICY N8.12      Require a noise monitoring plan to be submitted prior to the issuance of construction permits for all projects for which construction noise impacts have been identified, and that are located within 100 feet of any noise sensitive land uses. The plan shall identify the monitoring locations, durations and regularity, the instrumentation to be used, and appropriate noise control measures to ensure compliance with the noise ordinance. [NEW POLICY] [N140]
- POLICY N8.13      Continue to prioritize construction noise limits around sensitive receptors. [PTC] [NEW POLICY] [N141]

## 9. ENERGY

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### GOAL N-9. A Clean, Efficient, Competitively-priced Energy Supply That Makes Use of Cost-effective Renewable Resources.

- POLICY N9.1      Maintain Palo Alto's long-term supply of electricity and natural gas while transitioning to renewable energy and energy conservation. [Previous Policy N-44] [N142]
- POLICY N9.2      Encourage public infrastructure and private development projects to use life cycle analysis to minimize the consumption of energy and the production of greenhouse gasses over the life of the project. [PTC] [NEW POLICY] [N143]
- POLICY N9.3      Actively support the maximum economic use of solar electric (photovoltaic) and solar thermal energy, both as renewable supply resources for the Electric Utility Portfolio and as alternative forms of local power generation. [PTC] [NEW POLICY] [N144]

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## NATURAL ENVIRONMENT ELEMENT

- Program N9.3.1 Explore changes to building and zoning codes to incorporate solar energy and heat pumps into major development projects, including City owned projects. [PTC] [NEW PROGRAM] [N145]*
- Program N9.3.2 Promote use of the top floors of new and existing structured automobile garages for installation of photovoltaic panels. [PTC] [NEW PROGRAM] [N146]*
- Program N9.3.3 Promote installation of Electric Vehicle chargers at appropriate locations throughout the City to encourage alternate energy use. [PTC] [NEW PROGRAM] [N147]*
- POLICY N9.4 Encourage renewable energy use by continuing to implement a dynamic 100% carbon neutral Renewable Portfolio Standard for electric service. [PTC] [NEW POLICY] [N148]
- Program N9.4.1 Continue use of the greenhouse gas neutral electrical supply through long-term supply contracts for renewable energy. [PTC] [NEW PROGRAM] [N149]*
- POLICY N9.5 Advance the development of a “smart” energy grid, a diverse energy resource portfolio, and technologically advanced public utilities as a key part of a smart and connected city. (S/CAP Strategy) [NEW POLICY] [N150]
- Program N9.5.1 Revise the Palo Alto Green program so it continues to promote renewable energy efforts, such as solar projects or the purchase of carbon neutral gas supplies. [PTC] [NEW PROGRAM] [N151]*
- Program N9.5.2 Implement incentives for the adoption of cost-effective, alternative energy technologies from multiple fuel sources, to all customers. [PTC] [NEW PROGRAM] [N152]*
- Program N9.5.3 Monitor other utilities that successfully use alternative energy sources and seek funding for similar projects that would be appropriate in Palo [NEW PROGRAM] [N153]*
- Program N9.5.4 Evaluate the potential for a cost-effective plan for transitioning to a completely carbon-neutral natural gas supply. [PTC] [Previous Program N-68] [N154]*
- POLICY N9.6 Continually evaluate and revise forecasts for electric power demand. Pursue adequate low cost supplies to meet this demand by participating in cost-



effective programs offered by Northern California Power Agency (NCPA) or other suppliers and marketers of energy. [Previous Policy N-45] [N155]

*Program N9.6.1 Implement gas and electric rate structures that reflect the cost of service and balance other rate-making objectives, such as encouraging efficiency and providing a market price signal to customers. [Previous Program N-62] [N156]*

*Program N9.6.2 Incorporate cost-effective energy conservation measures into construction, maintenance, and City operation and procurement practices. [Previous Program N-65] [N157]*

POLICY N9.7 Retain the ability to purchase supplemental gas and electric power from other potential providers to remain competitive in the marketplace. [Previous Policy N-46] [N158]

POLICY N9.8 Maximize the conservation and efficient use of energy in new and existing residences, businesses, and industries in Palo Alto. [Previous Policy N-47] [N159]

*Program N9.8.1 Continue to provide public education programs addressing energy conservation and efficiency. [Previous Program N-64] [N160]*

*Program N9.8.2 Implement a cost effective energy efficiency program, including for low income customers. [N161]*

POLICY N9.9 Reduce natural gas in new buildings by encouraging all-electric new buildings. (S/CAP Strategy NG-GAS-1) [Previous Program N-63] [NEW POLICY] [N162]

POLICY N9.10 Support the development of technologies that use organic materials (e.g. food scraps, yard trimmings and residual solids from sewage treatment) to create biogas thereby maximizing the energy recovery from these waste products. [PTC] [NEW POLICY] [N163]

*Program N9.10.1 Evaluate energy efficient approaches for the treatment and reuse of biosolids that maximize resource recovery and reduce greenhouse gas generation at the Regional Water Quality Control Plant located in Palo Alto and the Palo Alto Landfill. [PTC] [NEW PROGRAM] [N164]*

*Program N9.10.2 Continue timely incorporation of state and federal energy efficiency standards and policies in relevant City codes, regulations, and procedures. [Previous Program N-66] [N165]*

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## 10. NATURAL HAZARDS

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**GOAL N-10. Protection of Life, Ecosystems and Property From Natural and Man-Made Hazards and Disasters, Including Earthquake, Landslide, Flooding, Fire and Hazardous Materials.**

### 10.1 GENERAL SAFETY MEASURES

POLICY N10.1 Focus efforts to reduce exposure to natural hazards in those areas of the City where the greatest risks exist. [Previous Policy N-49] [N166]

POLICY N10.2 Implement public safety improvements, such as access roads and other infrastructure, in a manner that is sensitive to the environment. [Previous Policy N-50] [N167]

### 10.2 SEISMIC ACTIVITY AND GEOLOGIC HAZARDS

POLICY N10.3 Expand citizen awareness of seismic and geologic hazards through public education and preparedness. [PTC] [NEW POLICY] [N168]

*Program N10.3.1 Continue the City's participation in regional earthquake awareness programs such as the "Annual Great Shake Out" and other relevant efforts to educate the public. [PTC] [NEW PROGRAM] [N169]*

*Program N10.3.2 Continue and strengthen earthquake preparedness activities with Palo Alto Unified School District. [PTC] [NEW PROGRAM] [N170]*

POLICY N10.4 Minimize exposure to geologic hazards, including slope stability, subsidence, and expansive soils, and to seismic hazards including groundshaking, fault rupture, liquefaction, and landsliding. [Previous Policy N-51] [N171]

*Program N10.4.1 Periodically review and update the City's Seismic Hazard Ordinance. [PTC] [NEW PROGRAM] [N172]*

POLICY N10.5 Promote rehabilitation and renovation of older buildings using incentives as a way to ensure safe and structurally sound buildings. [PTC] [NEW POLICY] [N173]

*Program N10.5.1 Strictly enforce Uniform Building Code seismic safety restrictions. [Previous Program N-69] [N174]*

*Program N10.5.2 Continue to provide appropriate incentives for seismic retrofits of structures in the University Avenue/ Downtown area. [Previous Program N-70] [N175]*

*Program N10.5.3 Allow development rights achieved through seismic upgrading of specified sites to be transferred to designated eligible receiver sites. [Previous Program N-71] [N176]*

*Program N10.5.4 Study the possibility of making revisions to the program which allows transfer of development rights by establishing a sunset date. [PTC] [NEW PROGRAM] [N177]*

*Program N10.5.5 Explore using Community Development Block Grant and Palo Alto Housing Funds to promote retrofitting of existing soft-story construction by owners of lower income and senior housing. [PTC] [NEW PROGRAM] [N178]*

POLICY N10.6 Encourage property owners and business owners to evaluate their vulnerability to earthquake hazards and take appropriate action to minimize their risk. [PTC] [NEW POLICY] [N179]

*Program N10.6.1 As part of the construction permitting process, require preparation and submittal to the City of a geotechnical report for proposed development and redevelopment in areas of identified hazard shown on Figure XX in order to identify associated risks and appropriate mitigation measures. [Previous Program N-73] [N180]*

*Program N10.6.2 Review and update, as appropriate, City code requirements for excavation, grading, and filling to ensure that they conform to currently accepted standards. [Previous Program N-74] [N181]*

### 10.3 FLOOD HAZARD AND MITIGATION

POLICY N10.7 Minimize exposure to flood hazards of proposed development in FEMA-designated Special Flood Hazard Areas. [Previous Policy N-52] [N182]

POLICY N10.8 Support regional efforts to improve bay levees. [Previous Policy N-52A] [N183]

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## NATURAL ENVIRONMENT ELEMENT

*Program N10.8.1 Will need map of levee protection zones, per SB 379 Establish a standardized process for evaluating the impacts of development on the storm drainage system. [Previous Program N-75] [N184]*

*Program N10.8.2 Implement flood mitigation requirements of FEMA in Special Flood Hazard Areas as illustrated on the Flood Insurance Rate Maps. [Previous Program N-76] [N185]*

*Program N10.8.3 Continue participating in FEMA's Community Rating System to reduce flood insurance for local residents and businesses. [PTC] [NEW PROGRAM] [N186]*

*Program N10.8.4 Together with the San Francisquito Creek Joint Powers Authority and the Santa Clara Valley Water District, participate in planning and implementation efforts that stabilize, restore, maintain and provide one percent (100-year) flood protection adjacent to San Francisquito Creek. [PTC] [NEW PROGRAM] [N187]*

**POLICY N10.9** Monitor and respond to the risk of flooding caused by climate change-related changes to precipitation patterns, sea level rise and storm surges. [PTC] [NEW POLICY] [N188]

*Program N10.9.1 Work cooperatively with the Santa Clara Valley Water District to provide flood protection from high tide events on San Francisco Bay, taking into account the impacts of future sea level rise, to provide one percent (100-year) flood protection from tidal flooding. [PTC] [NEW PROGRAM] [N189]*

*Program N10.9.2 Wherever feasible apply sea level rise adaptation approaches as recommended in the San Francisco Bay Plan adopted by San Francisco Bay Conservation and Development Commission. [PTC] [NEW PROGRAM] [N190]*

**POLICY N10.10** Monitor and maintain the integrity of all essential public facilities during flood events. [NEW POLICY] [N191]

## ***11. COMMUNITY SAFETY AND EMERGENCY MANAGEMENT***

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**GOAL N-11. DEVELOP AND COORDINATE A PLAN FOR FIRE, POLICE PROTECTION AND EFFECTIVE EMERGENCY PREPAREDNESS AND RESPONSE.**

### **11.1 PUBLIC AWARENESS AND GENERAL SAFETY MEASURES**

POLICY N11.1 Facilitate ongoing public education and awareness to prevent loss of life and property from impacts of natural and man-made disasters. [NEW POLICY] [N192]

*Program N11.1.1 Initiate public education programs strongly encouraging that each house- hold in the City be prepared to be self-sufficient for at least 72 hours after a major earthquake, flood, terrorism event, pandemic or other major disaster. [Previous Program N-82] [N193]*

*Program N11.1.2 Continue to implement the Emergency Services Volunteer program and encourage residents and employees to participate in citywide emergency drills and other public education activities. [PTC] [NEW PROGRAM] [N194]*

### **11.2 FIRE PROTECTION AND AWARENESS**

POLICY N11.2 Support Palo Alto Fire Department’s efforts in public education and community outreach to prevent injury, loss of life, and damage to property from accidental fires.[PTC] [NEW POLICY] [N195]

*Program N11.2.1 Provide public education on fire safety, including evacuation routes and guide- lines for clearance of landscaping and other hazards around structures. [???] [N196]*

POLICY N11.3 Address the risk of fire to land classified as “state responsibility areas” per PRC section 4102, and land classified as “very high fire hazard severity zone” per section 51177. [Previous Program N-78] [NEW POLICY] [N197]

POLICY N11.4 Minimize exposure to wildland and urban fire hazards through rapid emergency response, proactive code enforcement, public education programs,

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## NATURAL ENVIRONMENT ELEMENT

use of modern fire prevention measures, and adequate emergency management preparation. [Previous Policy N-53] [N198]

*Program N11.4.1 Regularly review and update the Fire Department's operations, training facilities, and programs to ensure consistency with current standards and Best Management Practices. [PTC] [NEW PROGRAM] [N199]*

*Program N11.4.2 Regularly review and update the Palo Alto Foothills Fire Management Plan and the fire emergency evacuation provisions in the City's Emergency Management Plan to ensure consistency with current standards and Best Management Practices. [Previous Program N-77] [N200]*

*Program N11.4.3 Implement the Foothills Fire Management Plan to balance conservation of natural resources with reduction of fire hazards especially in open space areas. [PTC] [NEW PROGRAM] [N201]*

*Program N11.4.4 Minimize fire hazards by implementing low density zoning in wildland fire hazard areas. [Previous Program N-79] [N202]*

POLICY N11.5 Provide emergency services consistent with the response time standards set forth in the Public Safety Department's (Fire, Police, Office of Emergency Services) plan. [Previous Policy N-54] [N203]

*Program N11.5.1 Evaluate measures with other jurisdictions for optimal service delivery to improve efficiency; develop automatic or mutual aid agreements with other jurisdictions to improve efficiencies. [Previous Program N-80] [N204]*

POLICY N11.6 Monitor and respond to the risk of wild land fire hazards caused by climate change. [PTC] [NEW POLICY] [N205]

*Program N11.6.1 Consider implementation of CAL FIRE recommended programs in educating and involving the local community to diminish potential loss caused by wildfire and identify prevention measures to reduce those risks. [PTC] [NEW PROGRAM] [N206]*

### 11.3 COMMUNITY SAFETY

- POLICY N11.7 Support the Palo Alto Police Department’s efforts in public safety education and community outreach. Use education and crime prevention as integral parts of the practice of law enforcement. [PTC] [NEW POLICY] [N207]
- POLICY N11.8 Encourage development of law enforcement programs to reduce and prevent crime through community partnerships including partnerships with school districts, businesses, nonprofit organizations, and community groups such as Emergency Services Volunteers. [PTC] [NEW POLICY] [N208]
- Program N11.8.1 Provide neighborhood security and crime prevention information and training to neighborhood groups and homeowners’ associations. [PTC] [NEW PROGRAM] [N209]*
- Program N11.8.2 Continue working with Palo Alto Unified School District to provide community safety education in the classroom and assist with the development of secure school facility projects and programs. [PTC] [NEW PROGRAM] [N210]*
- Program N11.8.3 Continue to support and encourage participation in the Police Department Explorer Post 61 program, as an effective means of introducing youth to the importance and benefits of local law enforcement. [PTC] [NEW PROGRAM] [N211]*
- POLICY N11.9 Regularly review the adequacy of law enforcement services and emergency services in the city. Plan and develop law enforcement infrastructure and technology according to overall need and the growth within the City. [PTC] [NEW POLICY] [N212]
- Program N11.9.1 Periodically monitor and review the level of public safety staffing required to ensure efficient service delivery to serve local needs. [PTC] [NEW PROGRAM] [N213]*
- Program N11.9.2 Plan for new public safety facilities to adequately meet the Police Department’s requirements to maintain operations securely even during a natural disaster. [PTC] [NEW PROGRAM] [N214]*
- POLICY N11.10 Require Police Department review of site plans and building designs for major development proposals in order to promote overall safety and crime prevention. [PTC] [NEW POLICY] [N215]

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## NATURAL ENVIRONMENT ELEMENT

POLICY N11.11 Continue to cooperate with neighboring jurisdictions and allied agencies for regional planning of day-to-day operations and disaster response. [PTC] [NEW POLICY] [N216]

### 11.4 EMERGENCY MANAGEMENT

POLICY N11.12 Follow the guidelines in the Emergency Operations Plan and continue towards implementing the four phases of National Incident Management Systems (NIMS): mitigation/prevention, preparedness, response, and recovery. [PTC] [NEW POLICY] [N217]

*Program N11.12.1 Regularly update and make publicly available the City of Palo Alto Emergency Operations Plan (EOP). [PTC] [NEW PROGRAM] [N218]*

*Program N11.12.2 Participate in local and regional planning efforts to comply with NIMS.[Previous Program N-81] [N219]*

POLICY N11.13 Encourage all entities, including the private sector and other non-governmental organizations, to coordinate emergency planning efforts, including planning for natural disasters, terrorism, war, infrastructure failure, and other disasters, consistent with the National Planning Scenarios via the Palo Alto/Stanford Citizen Corps Council (CCC). [PTC] [NEW POLICY] [N220]

*Program N11.13.1 Implement the mitigation strategies and guidelines provided by the Local Hazard Mitigation Plan. [PTC] [NEW PROGRAM] [N221]*

*Program N11.13.2 Continue citywide efforts to underground utility wires to limit injury, loss of life, and damage to property in the event of man-made or natural disasters. [PTC] [NEW PROGRAM] [N222]*

*Program N11.13.3 Enhance the safety of City-owned natural gas pipeline operations. Work with customers, public safety officials, and industry leaders to ensure the safe delivery of natural gas throughout the service area. Provide safety information to all residents on City-owned natural gas distribution pipelines. [PTC] [NEW PROGRAM] [N223]*

*Program N11.13.4 Implement the guidelines provided in the Utilities Emergency Response Plan to ensure continuity of City utilities*



*operation after natural or manmade disasters. [PTC] [NEW PROGRAM] [N224]*

*Program N11.13.5 Work with neighborhoods and civic organizations on emergency preparedness and security programs, use the Santa Clara County Alert SCC system to notify residents when needed. [PTC] [Previous Program G-10] [N225]*

POLICY N11.14 Encourage multiagency coordination in case of incidents that cross disciplinary or jurisdictional boundaries or coordination that involves complex incident management scenarios. [PTC] [NEW POLICY] [N226]

POLICY N11.15 Work with other government agencies, neighboring cities, local institutions, non-profit organizations, and private corporations with established emergency response functions to enhance the City's overall emergency response capabilities. [PTC] [NEW POLICY] [N227]

## ***12. CLIMATE CHANGE AND CLIMATE ADAPTATION***

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### **GOAL N-12. ACTIVELY SUPPORT REGIONAL EFFORTS TO REDUCE OUR CONTRIBUTION TO CLIMATE CHANGE WHILE ADAPTING TO THE EFFECTS OF CLIMATE CHANGE ON LAND USES AND CITY SERVICES.**

POLICY N12.1 Achieve target reductions in greenhouse gas emission levels from City operations and the community activity of 80% below 1990 levels by 2030. [NEW POLICY] [N228]

POLICY N12.2 Participate in cooperative planning with regional and local public agencies, including on the Sustainable Communities Strategy, on issues related to climate change, such as greenhouse gas reduction, water supply, sea level rise, fire protection services, emergency medical services, and emergency response planning. [NEW POLICY] [N229]

*Program N12.2.1 Work with regional, State, and federal agencies to determine if sea levels in the San Francisco Bay warrant additional adaptation strategies to address flooding hazards to existing or new development and infrastructure. [NEW PROGRAM] [N230]*

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## NATURAL ENVIRONMENT ELEMENT

POLICY N12.3 Pursue the goal of achieving zero net energy homes for all new detached or single-family residences by 2025. [PTC] [NEW POLICY] [N231]

POLICY N12.4 With guidance from the City's Climate Protection Plan and its subsequent updates and other future planning efforts, seek to reduce greenhouse gas emissions from City operations and from the community. [PTC] [NEW POLICY] [N232]

*Program N12.4.1 Every five years, or more frequently, update the Climate Protection Plan; this update shall include an updated greenhouse gas inventory and updated short, medium, and long-term emissions reduction goals. [PTC] [NEW PROGRAM] [N233]*

*Program N12.4.2 Following updates of the Climate Protection Plan, review relevant Elements of the Comprehensive Plan for consistency. [PTC] [NEW PROGRAM] [N234]*

*Program N12.4.3 Conduct a climate change review of the Zoning Ordinance and other relevant City codes to determine where they could be more supportive of the City's climate protection efforts, and update the codes to reflect those findings. [PTC] [NEW PROGRAM] [N235]*

*Program N12.4.4 Maximize greenhouse gas emissions reductions and energy use through operations improvements at the Regional Water Quality Control Plant. [PTC] [NEW PROGRAM] [N236]*

POLICY N12.5 Prioritize infrastructure improvements that address adaptation of critical facilities to climate change in the Capital Improvement Program (CIP) five-year plan. [PTC] [NEW POLICY] [N237]

POLICY N12.6 Protect Municipal Services Center, Utility Control Center and Utility Control Center (S/CAP Strategy) [NEW POLICY] [N238]

POLICY N12.7 Continue to work with regional partners to build resiliency policy into City planning and capital projects, especially near the San Francisco Bay shoreline. (S/CAP Strategy) [NEW POLICY] [N239]

*Program N12.7.1 Develop and implement "green infrastructure" practices to mitigate flooding through improved surface permeability or paved areas, and storm water capture and storage. [NEW PROGRAM] [N240]*

*Program N12.7.2 Prepare response strategies that address sea level rise, increased flooding, landslides, soil erosion, storm events and other events related to climate change. Include strategies to respond to the impacts of sea level rise on Palo Alto's levee system. [NEW PROGRAM] [N241]*

*Program N12.7.3 Implement shoreline development regulations to ensure that new development is protected from potential impacts of flooding resulting from sea level rise and significant storm events. Regulations may include new shoreline setback requirements; limits on lot line adjustments to avoid the creation of vulnerable shoreline lots; incentive or transfer of development rights (TDR) programs to relocate existing development away from high risk areas; and/or triggers for relocation or removal of existing structures based on changing site conditions and other factors. [NEW PROGRAM] [N242]*