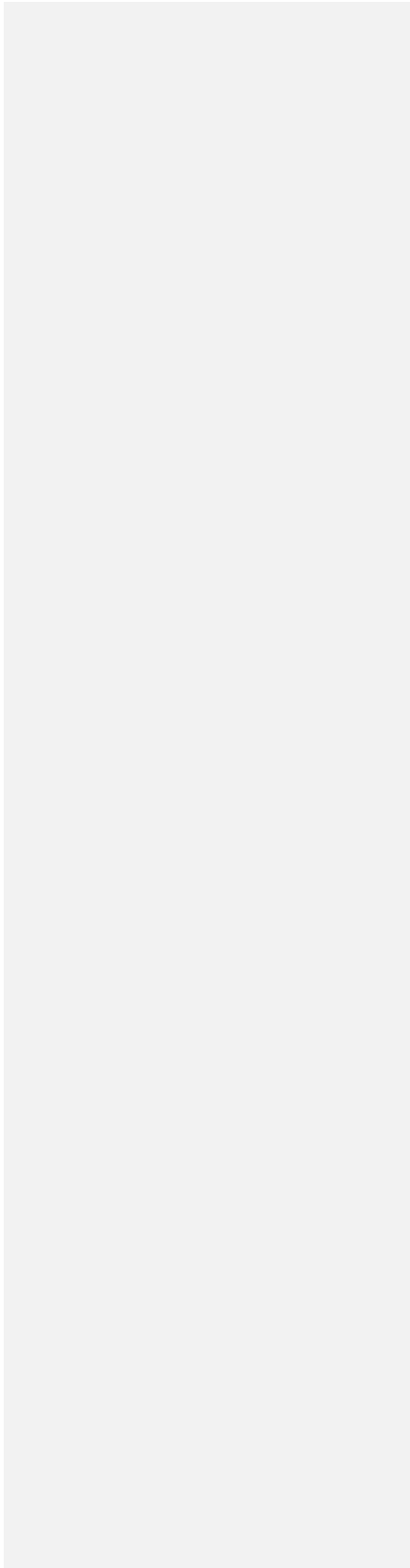


# Attachment A

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## NATURAL ENVIRONMENT ELEMENT

### 1. 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. Elements of the natural environment will be conserved where they remain intact and restored where they have been degraded by past development. 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. reduced solid waste generation, and cleanup of contaminated sites. The City will be well prepared for natural disasters and will grow and change in a way that minimizes public exposure to hazards like fire, flood, and earthquake.

**Comment [GG1]:** This is from item #10 under CC Motion 2...but it seems out of place. Elena?

**Comment [GG2]:** Per City Council motion

**Comment [GG3]:** Per City Council Motion

#### 1.1 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.

## 2. 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.**

Comment [GG4]: Per City Council motion

POLICY: 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 habitat-wildlife protection goals, ~~public safety concerns, and low impact recreation needs.~~ [Previous Policy N-1, per PTC]

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

Comment [JJ5]: PTC

*Program N-2: Examine and improve existing management practices for natural habitat and open space areas, including the provision of access to open space for City vehicles and equipment, to ensure that natural resources are protected.*

*NEW POLICY: Carefully manage access and use ~~Review the need for access controls~~ 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: Protect sensitive habitats and wildlife from the impacts of humans and nuisance animals.* [PTC]

*New Program: 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]

POLICY N-2: 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.

*Program N-4: Prioritize City funding, and sSeek additional sources of funding, including Sstate and Ffederal programs, to finance open space acquisition, maintenance and conservation, ~~and development~~*

*New Program: 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]

POLICY N-3: Protect sensitive plant species resources from the impacts of development.

*New Program: 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]

**Comment [JJ6]:** We have already addressed this in Land Use. Need to strategize.

*New Program: Work cooperatively with environmental groups dedicated to the welfare of birds in Palo Alto.* [PTC]

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

*New Program: 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: Improve existing management and community practices to protect native wildlife and natural animal habitats in open space.* [PTC]

POLICY N-4: Preserve, protect and enhance public and private open space and eco-systems of Palo Alto from the foothills to the baylands. Preserve the foothill area as predominantly open space.

**Comment [GG7]:** PTC changes

*New Program: 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]

PROGRAM N-5: Work to maintain Williamson Act ~~agricultural preserves~~ contracts within the City.

POLICY N-5: 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 for the preservation of the open space link between the urban area and the foothills.

**Comment [GG8]:** PTC changes

POLICY N-6: Through implementation of the Site and Design process and the Open Space zone district regulations, minimize impacts of any new development on views of the hillsides, on the open space character, and the natural ecology of the hillsides

**Comment [GG9]:** This is already incorporated into Zoning District; therefore unnecessary.

PROGRAM N-6: 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.

**Comment [GG10]:** This is already incorporated into Zoning District; therefore unnecessary.

POLICY N-7: All development in the foothill portion of the Planning Area (i.e., above Junipero Serra Boulevard) should be consistent with the following criteria:

**Comment [GG11]:** Need to verify whether or not this consistency has been achieved; if so, policy can be removed.

- 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.

POLICY N-8: Preserve and protect the Bay, marshlands, salt ponds, sloughs, creeks, and other natural water or wetland areas as open space and functioning habitat.

NEW POLICY: 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 Program: Review and map existing easements and maintenance roads for potential trails and trail connections. [PTC]

New Program: Implement the Foothills Fire Management Plan to balance conservation of natural resources with reduction of fire hazards especially in open space areas. [PTC]

### 3. CREEKS AND RIPARIAN AREAS

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

NEW POLICY: 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]

**Comment [GG12]:** Kirsten Struve: define 'preserving integrity of riparian corridors' better: ensure a 100-foot setback from the outside edge of the riparian habitat or top of bank, whichever is greater as the standard for projects to achieve.

NEW PROGRAM: Provide incentives and eliminate barriers where possible to encourage restoration on privately owned creek banks. [PTC]

NEW PROGRAM: 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: Minimize the amount of impervious surfaces by reducing surface parking lots.

**Comment [GG13]:** Per Kirsten Struve

POLICY N-9: 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.

POLICY N-10: 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 and, provide compatible low impact recreation, and ensure adequate flood control by use of low impact restoration strategies.

POLICY N 11: Preserve the integrity of riparian corridors.

**Comment [GG14]:** Merged into New First Riparian Policy, per PTC

PROGRAM N-7: Adopt a setback along natural creeks that prohibits the siting of buildings and other structures, impervious surfaces, outdoor activity areas, and ornamental landscaped areas within 100 feet of the top of a creek bank. Allow passive or intermittent outdoor activities and pedestrian, equestrian, and bi-cycle pathways where there are adequate setbacks to protect the natural riparian environment. Within the setback area, provide a border of native riparian vegetation at least 25 feet along the creek bank.

**Comment [GG15]:** Changes per PTC

~~▪ Exceptions to the 100 foot setback are as follows:~~

- ~~▪ Single family property is exempt from the 100 foot setback, except that undeveloped parcels southwest of Highway 280 are not exempt. A creek ordinance and guidelines will be prepared addressing appropriate setbacks and creek conservation measures.~~
- ~~▪ Existing development within the 100 foot setback will be considered legal and nonconforming. With the 100 foot setback as a goal where feasible, redevelopment of such sites must be designed consistent with basic creek habitat objectives and make a significant net improvement in the condition of the creek.~~

PROGRAM N-8: 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.

~~PROGRAM N-9: 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 Coordinated Resource Management and Planning (CRMP) process with adjacent cities.~~

~~NEW PROGRAM: 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 POLICY: 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 PROGRAM: Periodically review and revise the Stream Corridor Protection ordinance as needed to ensure its original goals are being achieved. [PTC]~~

~~POLICY N-12: Preserve the habitat value of creek corridors through the preservation of native plants and the replacement of invasive, non-native plants with native plants.~~

~~PROGRAM N-10: Work with the Santa Clara Valley Water District to establish guidelines for creek channel maintenance that encourage preservation of riparian habitat, including vegetation that provides shade to creek bottoms.~~

~~PROGRAM N-11: 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.~~

**Comment [GG16]:** Changes per PTC

**Comment [GG17]:** Merged to new first policy, per PTC

**Comment [GG18]:** Guidelines completed

**Comment [GG19]:** Walter Passmo: Consider influences of development and impervious surfaces to base flow and peak flow.



~~POLICY N 13: Discourage creek bank instability, erosion, downstream sedimentation, and flooding by minimizing site disturbance and vegetation removal on or near creeks and carefully reviewing grading and drainage plans for development near creeks and elsewhere in the watersheds of creeks.~~

**Comment [GG20]:** Not applicable, per PTC

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

~~PROGRAM N 12: Review and update the Grading Ordinance to ensure that it adequately protects creeks from the erosion and sedimentation impacts of grading.~~

**Comment [GG21]:** Complete

## 4. URBAN FOREST

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

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

**Comment [GG22]:** Walter Passmo: Apply policies such as no net loss of canopy to all projects and development review.

~~NEW PROGRAM: 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]~~

POLICY N-14: 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.

~~NEW PROGRAM: Continue working with environmental organizations and individuals dedicated to planting and protecting trees in Palo Alto.[PTC]~~

~~NEW PROGRAM: 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]~~

~~PROGRAM N 14: Implement the recommendations of the Tree Task Force.~~

**Comment [GG23]:** “Not applicable”, per PTC

~~PROGRAM N 15: Continue celebration of Arbor Day in Palo Alto.~~

**Comment [GG24]:** “Not applicable”, per PTC

~~PROGRAM N-16: Develop a formal program for the use of City’s Urban Forestry Fund for replacement of trees. Continue to require replacement of trees, including street trees lost to new development, and Establish a program to have replacement trees planted offsite when it is impractical to locate them onsite.~~

PROGRAM N-17: 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.

**Comment [GG25]:** Have these actions been completed? Need to verify. If so, can remove policy.

PROGRAM N-18: 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. ing for tree planting

**Comment [GG26]:** Merging of N-18 and N-19 per PTC

PROGRAM N-19: Establish one or more tree planting programs that seek to achieve the following objectives:

- a 50 percent tree canopy for streets, parks, and parking lots; and
- the annual tree planting goals recommended by the Tree Task Force and adopted by the City Council.

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

**Comment [GG27]:** Has been implemented

POLICY N-15: Require new commercial, multi unit, and single family housing projects to provide street trees and related irrigation systems.

**Comment [GG28]:** Moved under Policy N-14

POLICY N-16: Provide on going education for City staff, homeowners, and developers regarding landscaping and irrigation practices that protect the urban forest.

**Comment [GG29]:** Has been implemented

PROGRAM N-20: Establish procedures to coordinate City review, particularly by the Planning, Utilities, and Public Works Departments, of projects that might impact the urban forest.

PROGRAM N-21: ~~Work~~ Continue to work cooperatively with the Palo Alto Unified School District and Stanford University to ensure so that their tree planting and maintenance practices are consistent with City guidelines.

POLICY N-17: Preserve and protect Regulated Trees, including heritage trees and protected trees, public trees and designated landscape trees including native oaks and other significant trees, on public and private property.

**Comment [JJ30]:** I suggest we remove the tree-related policy/ies from Land Use in favor of this wording in NEE.

NEW PROGRAM: 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.

**Comment [GG31]:** Per Walter Passmo

## 5. WATER RESOURCES

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

NEW POLICY: Facilitate and promote the use of recycled or reclaimed water whenever safe and appropriate.

**Comment [JJ32]:** MOVE TO SAF  
PTC added here – should be in Infrastructure section of Safety Element. More about water supply than water quality.

### 5.1 GROUNDWATER

POLICY N-18: Support the Santa Clara Valley Water District as needed to implement their mandate to protect Palo Alto's groundwater from the adverse impacts of urban uses.

**Comment [GG33]:** PTC changes

*PROGRAM N-22: 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.*

**Comment [GG34]:** As per SB 379: these areas should be specifically identified in this Element; from latest HE

NEW PROGRAM: Work with other neighboring jurisdictions and communities to protect ground water. [PTC]

NEW POLICY: 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]

PROGRAM N-24: Maintain cost-effective citywide water conservation and efficiency programs for all customers, including low income customers.

**Comment [GG35]:** Moved per PTC

POLICY N-19: Secure a reliable, long-term supply of water for Palo Alto, including enhancing our emergency storage and supply system.

**Comment [GG36]:** Karla Dailey: The emergency well and storage project is complete, so I don't think we need this

NEW PROGRAM: Investigate ways to reuse non-traditional water sources including recycled, gray, black and stormwater.

PROGRAM N-23: Regularly review the water rate structure to ensure that it covers fixed costs based on cost of service studies and encourages conservation and efficiency encourages efficiency and is competitive.

**Comment [GG37]:** Changes per PTC

**Comment [GG38]:** Karla Dailey: Rates do not help to secure water supply and rates must be based on cost of service per Proposition 26

POLICY N-20: Maximize the conservation and efficient use of water in new and existing residences, businesses and industries.

**Comment [JJ39]:** MOVE TO SAF – Infrastructure

**Comment [GG40]:** Not applicable, per PTC

~~PROGRAM N-25: Where practical, incorporate federal, state, and other agency policies and standards for water efficiency into City codes, regulations, and procedures.~~

**Comment [JJ41]:** Suggest deleting. This is covered through CalGreen and PA's own Building Code

~~NEW POLICY: 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 rain water.~~

**Comment [JJ42]:** PTC – had as Program, But this is a policy

~~NEW PROGRAM: Educate customers on efficient water use (indoor and outdoor), tree care, and landscaping options.~~

**Comment [JJ43]:** MOVE TO SAF - Infrastructure

**Comment [GG44]:** Karla Dailey

~~PROGRAM N-26: 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]

**Comment [GG45]:** Changes per PTC

**Comment [GG46]:** Delete this program, per Karla Dailey

~~NEW POLICY: Improve source control and treatment of recycled water to maximize its use.~~ [PTC]

**Comment [JJ47]:** MOVE TO SAF – Infrastructure section

**Comment [GG48]:** Karla Dailey: Delete and Add program 5.4.3

## 5.2 STORMWATER

~~POLICY N-21: Reduce non-point source pollution~~ Reduce pollution in urban runoff from residential, commercial, industrial, municipal, and transportation land uses and activities.

~~PROGRAM N-27: 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.~~

**Comment [GG49]:** Kirsten Struve: Rather than focusing only on BMPs, could this be broader to refer to looking at cost effective opportunities to improve water quality through land use planning, development, and construction of stormwater management facilities.

~~PROGRAM N-28: Continue public education programs on water quality issues, including Best Management Practices (BMPs) for residents, businesses, contractors, and City employees.~~

**Comment [JJ50]:** This should be updated – stormwater BMPs are well established and vetted at this point. Word to leave room for ongoing improvement and evolution.

~~PROGRAM N-29: Actively participate in programs such as the Santa Clara Valley Urban Runoff Pollution Prevention Program to improve the quality of storm water runoff.~~

**Comment [GG51]:** PTC changes

~~PROGRAM N-30: Conduct regular street-sweeping to collect trash and road surface pollutants before they enter stormwater minimize road surface pollutant runoff.~~

**Comment [GG52]:** Kirsten Struve: this is incorporated in the idea of a program to manage stormwater in accordance with permit, so it could be taken out, or we could list what the permit requires above (inspections, spill response, etc.)

~~PROGRAM N-31: 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.~~

**Comment [GG53]:** PTC changes

~~PROGRAM N-32: Participate in and support statewide and national programs and initiatives to reduce the amount of copper and other toxic metals contained in brake pads, tires, and other automotive parts, thereby reducing urban runoff pollution from metals. Continue Palo Alto's leadership role in encouraging the re-engineering of vehicles to reduce pollution from metals.~~

**Comment [JJ54]:** Seems like an easy one to delete. Realistically is CC going to make this a priority?

NEW PROGRAM: Enforce the ordinance restricting use of architectural copper, thereby reducing urban runoff pollution.

**Comment [JJ55]:** Delete. Avoid policies or programs that say enforce existing ordinances.

NEW PROGRAM: Manage stormwater runoff in compliance with the Municipal Regional Stormwater permit.

**Comment [GG56]:** Kirsten Struve

NEW POLICY: 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.

**Comment [JJ57]:** PTC (had as Program, but this is a Policy)

NEW PROGRAM: Develop and implement a green stormwater infrastructure plan with the goal to treat and infiltrate stormwater.

**Comment [GG58]:** Kirsten Struve

PROGRAM N-33: Study the impacts on storm water pollution of architectural copper and consider limiting its use, if warranted.

**Comment [GG59]:** Complete

POLICY N-22: 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.

PROGRAM N-34: Evaluate-Promote the use of permeable paving materials that allow for natural percolation and site drainage through a Storm Water Rebate Program and other incentives.

**Comment [GG60]:** PTC changes

NEW PROGRAM: Promote landscape design that optimizes soil volume, porosity, structure, health, and configuration.

**Comment [GG61]:** Walter Passmo

POLICY N-23: Reduce the discharge of toxic materials into the City's sanitary sewer collection system by promoting the use of Best Management Practices.

**Comment [GG62]:** Merged into Policy N-25, per PTC

~~PROGRAM N-35: Work with commercial and industrial dischargers to recover metals onsite rather than discharging them into the sanitary sewer system.~~

**Comment [GG63]:** Moved to Policy N-25 per PTC

POLICY N-24: Improve storm drainage performance by constructing new system improvements where necessary and replacing undersized or otherwise inadequate lines with larger lines or parallel lines.

PROGRAM N-36: Complete improvements to the storm drainage system consistent with the priorities outlined in the City's 1993 Storm Drainage Master Plan, provided that an appropriate funding mechanism is identified and approved by the City Council.

**Comment [GG64]:** Changes per PTC

NEW POLICY: 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: 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 PROGRAM: Continue promoting sustainable low impact landscaping practices. [PTC]

### 5.3 WASTEWATER TREATMENT

POLICY N-25: 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.

NEW PROGRAM: Continue to educate residents on the proper disposal of pharmaceutical and household hazardous waste.

PROGRAM N-35: 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 recover metals onsite rather than discharging them into the sanitary sewer system.

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

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

NEW POLICY: 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 PROGRAM: implement approved recommendations based on the Long-Term Facilities Plan prepared for the Regional Water Quality Control Plant. [PTC]

PROGRAM N-37: Monitor wastewater treatment industry practices relating to the use of chlorine to disinfect wastewater.

Comment [GG65]: Section break per PTC

Comment [GG66]: PTC changes

Comment [GG67]: PTC changes

Comment [JJ68]: Move to SAF - Infrastructure

Comment [GG69]: Complete

## 6. AIR QUALITY

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

POLICY N-26: Support regional, state, and federal programs that improve air quality in the Bay Area.

PROGRAM N-38: Provide City input on significant proposals for air quality legislation and state implementation plans.

PROGRAM N-39: 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-

Comment [GG70]: Changes per PTC

PROGRAM N-40: Expand the use of alternative fuels for City vehicles and establish a program to encourage expanded use of such fuels in private vehicles. To support this program, encourage the development of alternative fuel infrastructure (for instance, electric plug-ins) in parking facilities and other key locations around the City.

Comment [GG71]: Changes per PTC

PROGRAM N-41: Support legislative programs that result in the removal of the oldest and dirtiest vehicles on the roadway.

POLICY N-27: Reduce emission of particulates from wood burning stoves, construction activity, automobiles, and other sources.

PROGRAM N-42: Prohibit new indoor wood-burning stoves or fireplaces, and rRequire wood-burning stoves or fireplace inserts to comply with EPA- approved standards.

PROGRAM N-43: Provide homeowners with information outlining low emission alternatives to wood-burning stoves and fireplaces.

PROGRAM N-44: Develop public information programs to educate the public on Best Management Practices in the use of wood burning appliances, including reduction of wood burning during critical periods of poor air quality.

Comment [GG72]: Complete

NEW PROGRAM: 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]

PROGRAM N-45: Recommend revisions to proposed projects as needed to reduce air quality impacts, including improvements that reduce single occupant vehicle use.

POLICY N-29: 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.

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

## 7. HAZARDOUS WASTE

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

POLICY N-30: Minimize-Discourage the use of toxic and hazardous materials. Encourage-Promote the use of alternative materials and practices that are environmentally benign.

**Comment [GG73]:** Changes per PTC

PROGRAM N-46: Continue to pProvide information to all user groups about the public regarding commonly used hazardous materials, environmentally preferable alternatives, and safe recycling and disposal methods/practices to all user groups.

**Comment [GG74]:** Changes per PTC

*PROGRAM N-47: Continue City permitting procedures for commercial and industrial storage, use, and handling of hazardous materials.*

PROGRAM N-48: Continue ~~sponsoring a~~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.

**Comment [GG75]:** Changes per PTC

PROGRAM N-49: Study the relative costs, advantages, and disadvantages of joining the regional household hazardous waste program operated by the Santa Clara County Department of Environmental Health.

**Comment [GG76]:** Complete

*PROGRAM N-50: Continue the program that allows small quantity generators to dispose of hazardous waste at cost.*

POLICY N-31: Continue working with appropriate agencies to clean up hazardous waste sites and contaminated groundwater.

POLICY N-32: Support public agency policies, regulations, legislation, and programs that implement the Santa Clara County's Hazardous Waste Materials Management PlanProgram.

**Comment [GG77]:** Changes per PTC



POLICY N-33: 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.

## 8. SOLID WASTE

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

POLICY N-34: ~~Reduce the amount of~~ ~~Eliminate~~ solid waste ~~disposed-disposal in the City's~~ landfills or incinerators by reducing the amount of waste generated ~~and~~, promoting reuse and maximizing recycling and composting. ~~the cost-effective reuse of materials that would otherwise be placed in a landfill.~~

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.

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

*PROGRAM N-51: To the extent allowed by law, use refuse rate structures that incentivize waste reduction. Regularly review the landfill fee structure to ensure that it encourages a reduction in solid waste disposal.*

*PROGRAM N-52: Improve City composting practices and continue to promoting-promote the household-composting program. Consider extending composting to include food wastes.*

*PROGRAM N-53: Continue to develop cost-effective source separation and improve recycling and composting programs for recyclable solid waste materials for residential and commercial customers/generators.*

*PROGRAM N-54: 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 such as the SMART Station.*

POLICY N-35: Reduce solid waste generation through salvage and reuse of building materials, including architecturally and historically significant materials.

*NEW PROGRAM: Periodically review and update the adopted Construction and Debris program.* [PTC]

**Comment [GG78]:** Changes per PTC

**Comment [GG79]:** EIR MM

**Comment [GG80]:** R Arp: Eliminate is too strong. Suggest saying strive for zero waste disposed in landfills. We can reference our zero waste operational plan that is updated periodically.

**Comment [JJ81]:** S/CAP

**Comment [GG82]:** Changes per PTC

**Comment [GG83]:** R Arp: This is a sensitive subject. Suggest deleting

**Comment [GG84]:** Changes per PTC

**Comment [GG85]:** Changes per PTC

**Comment [GG86]:** Changes per PTC

**Comment [GG87]:** EIR MM

NEW PROGRAM: 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]

PROGRAM N-55: Maintain and expand the use of the Recycling Center at the City's refuse disposal area.

POLICY N-38: Support state and federal legislation encouraging the use of recyclable and recycled content goods.

NEW POLICY: 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]

POLICY N-37: Ensure the environmentally sound disposal of solid waste.

POLICY N-36: 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.

**Comment [GG88]:** Not applicable, per PTC

**Comment [GG89]:** Repetitive, per PTC

## 9. NOISE

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

#### 9.2 INTERIOR AND EXTERIOR NOISE

POLICY N-39: 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: Use the guidelines in the table "Land Use Compatibility for Community Noise Environment" to determine compatibility.

- For exterior noise, the guideline for "normally acceptable" noise levels. The guideline for maximum outdoor 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).

**Comment [GG90]:** PTC Subheading

**Comment [GG91]:** Maintain per EIR MM

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.

- ~~For interior noise, the requirements of the indoor noise level as required by 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 multiple family dwelling units. This indoor criteria shall also apply to new single family homes in Palo Alto.~~

**Comment [GG92]:** Per EIR MM, with PTC changes

- 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, based on the noise contour map included in this plan, or more detailed noise measurements, if appropriate.~~

**Comment [GG93]:** PTC

NEW POLICY: ~~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.~~

**Comment [GG94]:** Per EIR MM

POLICY N-40: ~~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 Evaluate the potential for noise pollution and ways to reduce noise impacts when reviewing development and activities in Palo Alto and surrounding communities.~~

**Comment [GG95]:** Changes per PTC

POLICY N-41: ~~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:~~

**Comment [GG96]:** PTC changes

- ~~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; The project would cause the average 24-hour noise level (Ldn) to increase by 5.0 dB or more in an existing residential area, even if the Ldn would remain below 60 dB;~~
- ~~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; The project would cause the Ldn to increase by 3.0 dB or more in an existing residential area, thereby causing the Ldn in the area to exceed 60 dB;~~
- ~~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. The project would cause an increase of 3.0 dB or more in an existing residential area where the Ldn currently exceeds 60 dB.~~

POLICY N-42: The City may require ~~proposals~~ 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, ~~when compatible with aesthetic concerns.~~
- Screen and control noise sources such as parking lots, outdoor activities and mechanical equipment.
- Increase landscaped setbacks to serve as a buffer between ~~for~~ noise sources ~~from and~~ adjacent dwellings.
- Whenever possible, retain fences, walls or landscaping that serve as noise buffers while balancing these measures related to ~~although~~ design, safety and other impacts ~~must be addressed.~~
- Use soundproofing materials, noise reduction construction techniques, and/or acoustically rated windows/doors ~~and double glazed windows.~~
- Control hours of operation, including deliveries and trash pickup, to minimize noise impacts.

POLICY N-43: 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. ~~excessive noise.~~

~~PROGRAM N-57: Encourage the Joint Powers Board to pursue technologies to reduce train whistle noise in communities served by Caltrain.~~

PROGRAM N-58: ~~Continue to work~~ working to reduce noise impacts created by events and activities taking place in ~~adjoining~~ communities adjoining Palo Alto.

PROGRAM N-59: Evaluate the feasibility of adopting noise criteria in the purchase of new City vehicles and equipment.

PROGRAM N-60: Evaluate and u ~~Update~~ the Noise Ordinance, as needed, to provide for clear interpretation of the regulations, ~~and~~ to review the appropriateness of existing standards, ~~and to ensure that regulations address contemporary issues - Strictly enforce the Noise Ordinance.~~

PROGRAM N-61: Evaluate changes to the Noise Ordinance to reduce the impact of leaf blower noise.

### 9.3 TRANSPORTATION NOISE—ROADWAYS

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

Comment [GG97]: PTC changes

Comment [GG98]: Maintain per EIR MM, moved to railway per PTC

Comment [GG99]: Changes per PTC

Comment [GG100]: Maintain per EIR MM, changes per PTC

Comment [GG101]: PTC subheading

NEW POLICY: 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]

## 9.4 TRANSPORTATION NOISE—AIRWAY

NEW POLICY: 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 PROGRAM: 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]

*PROGRAM N-56: 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.*

## 9.5 TRANSPORTATION NOISE—RAILWAY

NEW POLICY: Minimize noise spillover from rail related activities into adjacent residential or noise-sensitive areas.

PROGRAM N-57: 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. ~~to reduce train whistle noise in communities served by Caltrain.~~

*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]

NEW POLICY: 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.

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.

Comment [GG102]: PTC subheading

Comment [GG103]: PTC, EIR MM

Comment [GG104]: PTC subheading

Comment [GG105]: Per EIR MM and PTC

Comment [GG106]: Maintain per EIR MM , changes per PTC

Comment [GG107]: Per EIR MM , PTC

## 9.6 CONSTRUCTION NOISE

NEW POLICY: 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: Continue to prioritize construction noise limits around sensitive receptors. [PTC]

Comment [GG108]: PTC subheading

Comment [GG109]: Per EIR MM , PTC

## 10. ENERGY

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

POLICY N-44: Maintain Palo Alto's long-term supply of electricity and natural gas while transitioning to renewable energy and energy conservation ~~addressing environmental and economic concerns.~~

NEW POLICY: 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: 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 PROGRAM: 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: Promote use of the top floors of new and existing structured automobile garages for installation of photovoltaic panels. [PTC]

NEW PROGRAM: Promote installation of Electric Vehicle chargers at appropriate locations throughout the City to encourage alternate energy use. [PTC]

NEW POLICY: Encourage renewable energy use by continuing to implement a dynamic 100% carbon neutral Renewable Portfolio Standard for electric service. [PTC]

NEW PROGRAM: Continue use of the greenhouse gas neutral electrical supply through long-term supply contracts for renewable energy. [PTC]

Comment [GG110]: PTC Changes

Comment [JJ111]: X ref w Transportation to be sure we are not redundant.

NEW POLICY: Advance the development of a -“smart” energy grid, a diverse energy resource portfolio, and technologically advanced public utilities strategies as a key part of a smart and connected city. (S/CAP Strategy)

**Comment [JJ112]:** S/CAP

NEW PROGRAM: 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: Implement incentives for the adoption of cost-effective, alternative energy technologies from multiple fuel sources, to all customers. [PTC]

PROGRAM N-68: ~~Monitor other utilities that successfully use alternative energy sources and seek funding for similar projects that would be appropriate in Palo Alto.~~

**Comment [GG113]:** Move per PTC

NEW PROGRAM: Evaluate the potential for a cost-effective plan for transitioning to a completely carbon-neutral natural gas supply. [PTC]

**Comment [JJ114]:** Is this still relevant? CPAU staff should review this section if they have not.

POLICY N-45: 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.

PROGRAM N-62: ~~Implement gas and electric rate structures that reflect the cost of service and balance encourage energy conservation and that are in balance with other rate- making objectives, such as encouraging efficiency and providing a market price signal to customers providing competitive rates. Set rates to achieve a balance between actual service costs, market prices, and the goal of promoting conservation and efficient use. Continue to provide a baseline service rate.~~

**Comment [GG115]:** PTC Changes

PROGRAM N-63: ~~Implement energy efficiency programs.~~

PROGRAM N-64: ~~Encourage continuation of public education programs addressing energy conservation and efficiency.~~

**Comment [GG116]:** Move below Policy N-47 per PTC

PROGRAM N-65: Incorporate cost-effective energy conservation measures into construction, maintenance, and City operation and procurement practices.

POLICY N-46: Retain the ability to purchase supplemental gas and electric power from other potential providers to remain competitive in the marketplace.

POLICY N-47: ~~Optimize~~ Maximize the energy conservation and efficient use of energy ~~ey~~ in new and existing residences, businesses, and industries in Palo Alto.

**Comment [GG117]:** Changes per PTC

PROGRAM N-64: ~~Encourage continuation of~~ Continue to provide public education programs addressing energy conservation and efficiency.

PROGRAM N-63: Implement a cost effective energy efficiency program, including for low income customers.

NEW POLICY: Reduce natural gas in new buildings by encouraging all-electric new buildings. (S/CAP Strategy NG-GAS-1)

NEW POLICY: 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 PROGRAM: 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]

POLICY N-48: Encourage the appropriate use of alternative energy technologies.

PROGRAM N-66: Continue timely incorporation of state and federal energy efficiency standards and policies in relevant City codes, regulations, and procedures.

PROGRAM N-67: Provide information and advice on the use of alternative energy technologies, including the relative costs and benefits of different types of fuel, to all customers.

~~PROGRAM N-68: Monitor other utilities that successfully use alternative energy sources and seek funding for similar projects that would be appropriate in Palo Alto.~~

**Comment [JJ118]:** S/CAP

**Comment [GG119]:** Not applicable, per PTC

**Comment [GG120]:** Changes per PTC

**Comment [GG121]:** Not applicable, per PTC

**Comment [GG122]:** Move to Safety Element, per CC

## 11. NATURAL HAZARDS

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

### 11.1 GENERAL SAFETY MEASURES

POLICY N-49: Focus efforts to reduce exposure to natural hazards in those areas of the City where the greatest risks exist.

POLICY N-50: Implement public safety improvements, such as access roads and other infrastructure, in a manner that is sensitive to the environment.



~~Seismic and Other Activity and Geologic Hazards~~

**Comment [GG123]:** Move this section to 1<sup>st</sup> position, per PTC

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

NEW PROGRAM: 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: Continue and strengthen earthquake preparedness activities with Palo Alto Unified School District. [PTC]

POLICY N-51: Minimize exposure to geologic hazards, including slope stability, subsidence, and expansive soils, and to seismic hazards including groundshaking, fault rupture, liquefaction, and landsliding.

NEW PROGRAM: Periodically review and update the City's Seismic Hazard Ordinance. [PTC]

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

~~PROGRAM N-69: Strictly enforce Uniform Building Code seismic safety restrictions~~

**Comment [GG124]:** Complete

PROGRAM N-70: Continue to provide *appropriate* incentives for seismic retrofits of structures in the University Avenue/ Downtown area.

PROGRAM N-71: Allow development rights achieved through seismic upgrading of specified sites to be transferred to designated eligible receiver sites.

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

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

~~PROGRAM N-72: Revise the Zoning and Subdivision Ordinances to recognize seismic, geologic, and soil related hazards.~~

**Comment [GG125]:** Complete

~~PROGRAM N-73: 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. from an engineering geologist that reviews geologic, soils, and engineering~~

**Comment [GG126]:** Moved per PTC

reports for developments in hazard areas. Establish appropriate fees to cover the cost of this review.

PROGRAM N-74: Review and update, as appropriate, City code requirements for excavation, grading, and filling to ensure that they conform to currently accepted standards.

**Comment [GG127]:** Moved per PTC

## 11.2 FLOOD HAZARD AND MITIGATIONS

POLICY N-52: Minimize exposure to flood hazards of proposed development in FEMA-designated Special Flood Hazard Areas by adequately reviewing proposed development in flood-prone areas.

**Comment [GG128]:** Moved per PTC

**Comment [GG129]:** PTC

POLICY N-52A: Support Regional Efforts to Improve Bay Levees

**Comment [GG130]:** Add per City Council, SB 379 identifies "map of levee protection zones"

Will need map of levee protection zones, per SB 379

PROGRAM N-75: Establish a standardized process for evaluating the impacts of development on the storm drainage system.

PROGRAM N-76: Implement the flood mitigation requirements of FEMA relating to construction in Special Flood Hazard Areas as illustrated on the Flood Insurance Rate Maps.

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

NEW PROGRAM: 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 POLICY: 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 PROGRAM: 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: 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 POLICY: Monitor and maintain the integrity of all essential public facilities during flood events.

**Comment [GG131]:** SB 379

## 12. COMMUNITY SAFETY AND EMERGENCY MANAGEMENT

**Comment [GG132]:** New PTC section TO BE MOVED TO SAFETY  
CC motion: Add "the Safety Element will include emergency preparation and coordination with citizens."

### GOAL: DEVELOP AND COORDINATE A PLAN FOR FIRE, POLICE PROTECTION AND EFFECTIVE EMERGENCY PREPAREDNESS AND RESPONSE.

#### 11.112.1 PUBLIC AWARENESS AND GENERAL SAFETY MEASURES

NEW POLICY: Facilitate ongoing public education and awareness to prevent loss of life and property from impacts of natural and man-made disasters.

PROGRAM N-82: Initiate public education programs that strongly encourage that each household in the City is be prepared to be self-sufficient for at least 72 hours after a major earthquake, flood, terrorism event, pandemic or other major disaster. Update and distribute the City's earthquake preparedness guide, "Living with Our Faults."

NEW PROGRAM: 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]

#### 11.212.2 FIRE PROTECTION AND HAZARDS AWARENESS

NEW POLICY: 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]

PROGRAM N-78: Provide public education on fire safety, including evacuation routes and guidelines for clearance of landscaping and other hazards around structures.

**Comment [GG133]:** Moved, per PTC

NEW POLICY: 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.

**Comment [GG134]:** Per SB 379

POLICY N-53: Minimize exposure to wildland and urban fire hazards through rapid emergency response, proactive code enforcement, public education programs, use of modern fire prevention measures, and adequate emergency management preparation.

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

PROGRAM N-77: 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.

**Comment [GG135]:** Changes per PTC

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

PROGRAM N-79: Minimize fire hazards by implementing low density zoning in wildland fire hazard areas.

POLICY N-54: Provide emergency fire and medical services consistent with the response time standards set forth in the Fire-Public Safety Department's (Fire, Police, Office of Emergency Services) plan, annual budget.

**Comment [GG136]:** Changes per PTC

PROGRAM N-80: Evaluate measures with other jurisdictions for optimal service delivery to improve efficiency; for consolidation of services with other jurisdictions and develop automatic or mutual aid agreements with other jurisdictions to improve efficiencies.

**Comment [GG137]:** Changes per PTC

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

NEW PROGRAM: 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]

## **12.3 COMMUNITY SAFETY**

**Comment [GG138]:** PTC subheading

NEW POLICY: 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: 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 PROGRAM: Provide neighborhood security and crime prevention information and training to neighborhood groups and homeowners' associations. [PTC]

NEW PROGRAM: 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: 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 POLICY: 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 PROGRAM: Periodically monitor and review the level of public safety staffing required to ensure efficient service delivery to serve local needs. [PTC]

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

## **12.4 EMERGENCY MANAGEMENT**

NEW POLICY: 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 PROGRAM: Regularly update and make publicly available the City of Palo Alto Emergency Operations Plan (EOP). [PTC]

POLICY N 55: Minimize exposure to all hazards through emergency management planning.

PROGRAM N-81: Participate in local and regional planning efforts to comply with NIMS. Regularly update and distribute the City of Palo Alto Emergency Management Plan, including the earthquake, flood, and fire emergency evacuation plans. Consult with the Palo Alto Unified School District in updating the Plan.

~~PROGRAM N 82: Initiate public education programs that strongly encourage that each household in the City is prepared to be self-sufficient for 72 hours after a major earthquake. Update and distribute the City's earthquake preparedness guide, "Living with Our Faults."~~

NEW POLICY: Encourage all entities, including the private sector and other non-governmental organizations, to coordinate emergency planning efforts, including planning for natural disasters.

**Comment [GG139]:** Repetitive, per PTC

**Comment [GG140]:** Changes per PTC

terrorism, war, infrastructure failure, and other disasters, consistent with the National Planning Scenarios via the Palo Alto/Stanford Citizen Corps Council (CCC). [PTC]

NEW PROGRAM: Implement the mitigation strategies and guidelines provided by the Local Hazard Mitigation Plan. [PTC]

NEW PROGRAM: 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: 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: Implement the guidelines provided in the Utilities Emergency Response Plan to ensure continuity of City utilities operation after natural or manmade disasters. [PTC]

PROGRAM G-10: 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]

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

NEW POLICY: 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]

### 13. CLIMATE CHANGE AND CLIMATE ADAPTATION

GOAL N-10: 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.

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

**Comment [GG141]:** Needs updating per SB 379 "to address climate adaption & resiliency"

**Comment [GG142]:** New section per City Council; PTC wants moved to second position in Element

**Comment [GG143]:** PTC

NEW POLICY: 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.

**Comment [GG144]:** EIR MM

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

**Comment [GG145]:** S/CAP

NEW POLICY: 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]

**Comment [GG146]:** S/CAP

NEW PROGRAM: 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]

**Comment [GG147]:** S/CAP

NEW PROGRAM: Following updates of the Climate Protection Plan, review relevant Elements of the Comprehensive Plan for consistency. [PTC]

**Comment [GG148]:** Kirsten Struve: We could say: develop a climate adaptation plan to review vulnerabilities and develop an action plan, including review of zoning ordinance updates to reflect climate adaptation needs.

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

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

**Comment [JJ149]:** S/CAP

NEW POLICY: Protect Municipal Services Center, Utility Control Center and Utility Control Center (S/CAP Strategy)

**Comment [JJ150]:** S/CAP

NEW POLICY: 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)

**Comment [GG151]:** EIR MM, SB 379, S/CAP

NEW PROGRAM: Develop and implement "green infrastructure" practices to mitigate flooding through improved surface permeability or paved areas, and storm water capture and storage.

**Comment [GG152]:** EIR MM

NEW PROGRAM: 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.

**Comment [GG153]:** SB 379: Map of levee protection zones should be included

NEW PROGRAM: 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.

**Comment [GG154]:** EIR MM