



# 8

## 8. Environment Element

The Environment Element aims to preserve, protect, and enhance the natural and historical resources that make Pleasant Hill a unique place. The element includes goals, policies, and programs related to air and water quality; natural, biological, and cultural resources; and sustainability in Pleasant Hill.

The Environment Element is divided into the following sections:

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## Key Terms

**100-year Flood Zone.** Areas with a one percent risk of flooding in any given year.

**500-year Flood Zone.** Area with a 0.2 percent chance of flooding in any given year.

**Aquifer.** An underground layer of water-bearing permeable rock, rock fractures, or unconsolidated materials that can contain or transmit groundwater below the ground surface.

**BAAQMD.** Bay Area Air Quality Management District; the public agency responsible for regulating stationary air pollution sources in the nine-county San Francisco Bay Area.

**Channelization.** Stream bank engineering strategies that include concrete waterways, piling rocks, and creating berms used to redirect water from flood plains or to protect the edges of a waterway from erosion.

**Conservation.** Natural resource management to prevent waste, destruction, or neglect.

**Critical Habitat.** Specific areas designated by the U.S. Fish and Wildlife Service (USFWS) as essential to the conservation of a federally-listed species and which may require special management considerations or protection. On City, county, state, or private land where there is no federal involvement, a critical habitat designation has no regulatory impact. In other words, designation of critical habitat generally does not affect non-federal land unless and until the property owner needs a federal permit or requests Federal funding for a project.

**Cultural Resources.** Any prehistoric or historic remains or indicators of past human activities, including artifacts, sites, structures, landscapes, and objects of importance to a culture or community for scientific, traditional, religious, or other reasons.

**Green Building Code.** Building codes that go beyond minimum code requirements that raise the bar for energy efficiency, serve as a proving ground for future standards, and incorporate elements beyond the scope of the model energy codes, such as water and resource efficiency.

**Greenhouse Gases (GHGs).** Gases that contribute to the greenhouse effect of the planet by absorbing infrared radiation. Common greenhouse gases are carbon dioxide, methane, nitrous oxide, and fluorinated gases, among others.

**Groundwater.** Water present beneath Earth's surface in soil pore spaces and in rock formation fractures.

**Historical Resources.** A district, site, building, structure, or object that is significant in the history, architecture, engineering, archaeology, or culture and is typically 50+ years old.

**Impervious Surface.** Surfaces impenetrable by water.

**Permeable Paving.** Paving that enables stormwater runoff infiltration.

**Recycled Water.** Wastewater that has been treated for beneficial purposes such as agricultural and landscape irrigation, industrial processes, and replenishing ground water basins.

**Renewable Energy.** Energy produced from natural resources, including solar, wind, rain, tides, geothermal, and biomass.

**Riparian Area.** A zone of transitional habitat between terrestrial and aquatic ecosystems, dependent on the existence of perennial, intermittent, or ephemeral surface or subsurface water, such as the bank of stream, river, or lake.



**RWQCB.** San Francisco Bay Regional Water Quality Control Board; the public agency responsible for regulating water quality in the nine-county San Francisco Bay Area.

**Sensitive Species.** Wildlife species or their habitat that have small or declining populations or are at-risk for decline or extinction.

**Sphere of Influence.** A planning boundary that designates the probable future boundary and service area of a city or special district.

**Water Quality.** The chemical, physical, and biological characteristics of water, usually in respect to its suitability for a particular purpose.

**Watershed.** The land surface area from which water drains into a common point.

**Wetlands.** Areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

## 8.1 Water Resources

Water resources of the greatest interest in Pleasant Hill include water supply, water quality, groundwater recharge, and water recycling and conservation. An adequate and high-quality water supply is an essential need, and as such, the government regulates water supply, quality, and use. Because water moves across jurisdictional boundaries above ground and through aquifers, much of the regulation occurs at the regional, State, and Federal levels. Nonetheless, cities have legal authority over development and land use, which means they need to consider the adequacy of water supplies relative to the effects of development on the quantity and quality of water available to the community and its biological resources.

The long-term adequacy of groundwater and surface water resources has become a major public concern in California. Issues include lowered groundwater levels, salt loading, water needs of wildlife, increased storm water runoff, sediment and pollutant loading in runoff, summer rationing in dry years, water use rates, conservation methods, water storage limitations, re-use of water, and continued changes in regulations.

### Water Supply

Pleasant Hill water is supplied by four water districts: Contra Costa Water District, East Bay Municipal Utility District, Diablo Vista Water System, and the Martinez Water District. The primary water source is the Sacramento-San-Joaquin River Delta. The Central Contra Costa Sanitary District (Central San) provides landscape irrigation water that meets the State Water Resources Control Board Division of Drinking Water requirements for unrestricted landscape irrigation. Approved uses include irrigation at schools, parks, playgrounds, roadway median strips, and sports fields. Water from Central San can also be used for construction project dust control.

#### ENV-1

Provide an adequate water supply for residential, business, and other uses needed to support the existing and projected city population. *[Source: New Goal]*

#### ENV-1.1

##### Adequate Water Supply and Delivery

SUS

Work with water districts and Central San to assure adequate water supply for, and delivery to, existing and future customers in Pleasant Hill. *[Source: New Policy]*

**ENV-1.2**

SUS

**Green Building Code**

Enforce the Green Building Code to ensure the design, construction, operation, use, and occupancy of new construction and remodeling are subject to contemporary water efficiency standards. *[Source: New Policy]*

**ENV-1.3**

SUS

**Commercial and Business Water Conservation**

Require new or remodeled commercial and industrial development to make changes that conserve water, to the extent feasible. This could include utilizing efficient plumbing fixtures, installing drought-tolerant and water-wise landscaping, and harvesting rainwater for irrigation. *[Source: New Policy]*

**ENV-1.4**

SUS

**Municipal Water Conservation**

Require, where feasible, that City facilities install efficient plumbing fixtures in new construction or renovations, replacing inefficient plumbing fixtures, and installing drought-tolerant and water-wise landscaping to conserve water. *[Source: New Policy]*

**ENV-1.5**

SUS

**Water Conservation in Public Facilities**

During construction or renovation of public facilities, institute water conservation measures such as hot-on-demand water faucets, low flush toilets, and low water using appliances. *[Source: New Policy]*

**ENV-1.6**

SUS

**Recycled Water at Public Facilities**

Partner with Central San to expand recycled water lines to public facilities to connect public landscape irrigation systems to a recycled water distribution system when renovating or developing new public facilities. *[Source: New Policy]*

**ENV-1.7**

SUS

**Water Supply Resiliency**

Work with Central San and the DVWS to expand the use of recycled and other non-potable water for landscape irrigation and other appropriate uses. *[Source: Source: Existing General Plan, Community Development Program 23.7]*



**NOTE:** Goals and policies pertaining to water service and district suppliers are covered in the Public Facilities, Services, and Infrastructure Element.

## Water Quality

Depending on the location of a city, water quality can potentially be affected by saltwater intrusion from sea level rise, and watershed runoff of contaminants such as those used in automotive and manufacturing uses, dry cleaners, or other chemical and industrial processes. Pleasant Hill's water quality is generally good with minimal exposure to contaminants, and consistently ranks high in annual water quality based on reporting from all four water districts.

A portion of eastern Pleasant Hill is in the FEMA 100-year flood plain hazard zone due to its proximity to Grayson Creek, which is subject to periodic flooding, in part because of debris. Sedimentation and debris in water sources like Grayson Creek can compromise water quality in the creek and the water bodies into which it flows.

**ENV-2**

Protect the quality of water resources in Pleasant Hill. *[Source: New Goal]*

**ENV-2.1****Drainage System Maintenance****SUS**

Maintain and upgrade the city drainage system, including regularly clearing drainage systems of debris build up that exacerbates flood impacts. *[Source: Existing General Plan, Safety and Noise Policy 1A and 1B, modified]*

**ENV-2.2****Drainage Improvements****SUS**

Cooperate with regional agencies to complete regional storm drainage improvements. *[Source: New Policy]*

**ENV-2.3****Limit Parking Areas****SUS**

Discourage additional parking for any new development unless the developer can demonstrate the need for additional parking. *[Source: New Policy]*

**ENV-2.4****Alternative Paving Methods****SUS**

Encourage alternative materials and designs to limit driveways, parking areas and parking lots citywide, including pervious paving material, turf stones, and “ribbon strip” driveways. *[Source: New Policy]*

**ENV-2.5****Alternative Drainage Design****SUS**

Continue to require bioswales and other innovations in new development to allow runoff from parking lots and all impervious area to drain into landscaped areas and rainwater percolate into the ground. *[Source: New Policy]*

**ENV-2.6****Creek Preservation****SUS**

Creek setbacks, where feasible, should exceed minimum regulatory setback guidelines to protect native vegetation and enhance creek environments. *[Source: New Policy]*

**ENV-2.7****Watercourse Preservation**

Preserve natural watercourses or provide naturalized drainage channels within the city. Where feasible, implement restoration and rehabilitation opportunities. *[Source: New Policy]*

**ENV-2.8****Creek Clean-up**

Collaborate with local and regional agencies, businesses, property owners, and organizations proactively to reduce litter, illegal dumping, and reestablish native vegetation along local creeks and waterways. *[Source: New Policy]*



**NOTE:** Goals and policies pertaining to parks, open space, and subsequent areas for recreation are covered in the Open Space, Parks, and Recreation Element.



## 8.2 Biological Resources

Most land in the city and its sphere of influence is developed, limiting the amount of sensitive plant and animal habitat. Undeveloped hillsides and other open spaces in Pleasant Hill support pockets of grassland, oak woodland, and shrubland-chaparral habitat. The city also has a variety of plants and trees that provide additional cover and food for animals. This “urban habitat” includes residential and commercial landscaping and streetscape plantings. Rodents, small mammals, and birds use trees and vegetated areas for foraging and nesting. Some sensitive plant and animal species have been historically identified as having the potential to be present as well. These are provided in Table 6-1.

Grayson Creek, Murderers Creek (and several others see creek map) and the Contra Costa Canal form the major waterways in Pleasant Hill. Most of the wetlands in the city have been converted to urban use, and what remains are channelized streams. While the water ways include a portion that is paved and channelized, they still provide some habitat in the channel bottoms, where sediment collects and creates opportunities for plant and animal species to become established. Seasonally wet areas become evident during rainy periods and the creek corridors include limited wetlands and riparian vegetation that provide habitat for birds, amphibians, fish, and terrestrial species. The wetlands that remain in the city are important for recharge and filtering of water supplies.

Wildlife species listed as threatened or endangered in the surrounding area include the California red-legged frog and the Alameda whipsnake. Critical species in the San Joaquin Delta north of Pleasant Hill include the delta smelt and steelhead trout.

**Table 8-1 Vegetative Communities and Animal Species with the Potential to Occur in the Planning Area**

Vegetative Communities	Sensitive Plant Species	Sensitive Animal Species
Brackish Marsh/Mudflat	Alkali milkvetch	Bay checkerspot butterfly
Freshwater marsh	Antioch Dunes evening primrose	California clapper rail
Grassland	Contra Costa goldfields	California least tern
Seasonal wet grassland	Contra Costa wallflower	California red-legged frog
Seasonal wet plowed grassland	Large-flowered fiddleneck	California tiger salamander
Non-habitat	Mason’s Lilaeopsis	Giant garter snake
Oak woodland	Mt. Diablo bird’s beak	Lange’s metalmark butterfly
Open water	Rock sanicle	Longhorn fairy shrimp
Shrubland/chaparral	Soft bird’s beak	Saltmarsh harvest mouse
		San Joaquin kit fox

Source: Contra Costa Water District 2016

Pleasant Hill is also home to several protected tree species and is surrounded by critical habitat for animal species, although no critical habitat exists within the city limits. The City has taken steps to encourage the protection of a variety of tree species through the City Zoning Ordinance (Section 18.50.110). The Zoning Ordinance includes supplemental regulations to protect native oak trees and indigenous trees with a trunk diameter of nine inches or larger at a height of 24 inches above ground.

<b>ENV-3</b>	Preserve and restore streams, wetlands, and riparian areas to function as open space and wildlife corridors. <i>[Source: Existing General Plan, Community Development Goal 21, modified]</i>
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**ENV-3.1 Creek Protection Zone Establishment for New Development**  
 Establish creek protection zones for creeks that extend a minimum of 25 feet (measured from the top of a bank and a strip of land extending laterally outward from



the top of each bank), with wider buffers where significant habitat areas or high potential wetlands exist. The City shall prohibit development within a creek protection zones, except as part of greenway enhancement, including habitat conservation, bike and walking paths, wildlife habitat, and native plant landscaping). City approval is required for the following activities within the creek protection zones:

1. Construction, alteration, or removal of any structure;
2. Excavation, filling, or grading;
3. Removal or planting of vegetation (except for removal of invasive plant species);  
or
4. Alteration of any embankment.

*[Source: New Policy]*

### ENV-3.2

#### **Creek Contamination and Sedimentation Prevention**

Require new development to use site preparation, grading, and construction techniques that prevent contamination and sedimentation of creeks and streams.

*[Source: New Policy]*

### ENV-3.3

#### **Creek Bank Stabilization**

Require new development proposals to include appropriate measures for creek bank stabilization, and any additional steps necessary to reduce erosion and sedimentation but preserve natural creek channels and riparian vegetation. *[Source: New Policy]*

### ENV-3.4

SUS

#### **Stream, Wetland, and Riparian Reclamation**

Reclaim degraded streams, wetlands, riparian areas, and wildlife migration corridors, where possible, in cooperation with the Flood Control District, and other local and regional organizations. *[Source: Existing General Plan, Community Development Policy 21A, modified]*

### ENV-3.5

SUS

#### **Reclamation with New Development**

Require new development adjacent to creek protection zones to encourage the reclamation of adjacent creeks, wetlands, and riparian areas. *[Source: Existing General Plan, Community Development Program 21.1, modified]*

### ENV-3.6

SUS

#### **Natural Stream Corridor Retention and Improvement**

Actively support the use of natural waterways within the city. The City will actively work to avoid any new channelization of creeks and waterways within the city and shall work with regional agencies to restore channelized sections to a more natural channel, where feasible. *[Source: New Policy]*

### ENV-3.7

SUS

#### **Erosion Control Plans**

Require erosion control plans for new development that require significant grading or are near streams, wetlands, and riparian areas. The plans shall include recommendations for grading practices that prevent erosion, loss of topsoil, and scour of drainageways, consistent with biological and aesthetic values. *[Source: New Policy]*

- ENV-3.8**      **Educational and Research Access**  
Work with public and private landowners adjacent to creeks to allow access to creeks, waterways, and riparian areas for educational and research programs. *[Source: New Policy]*
- ENV-3.9**      **Restoration and Creek Maintenance**  
**SUS** Encourage all landowners in the city to remove invasive species, plant native plant species, and prevent pollution from entering local creeks and waterways. *[Source: New Policy]*

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**ENV-4**      Protect and preserve natural habitat, plants, and wildlife. *[Existing General Plan, Community Development Goal 22, modified]*

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- ENV-4.1**      **Minimize Development Impacts**  
**SUS** Require new development and construction activities to minimize impacts and disturbances on plants and animals, including sensitive habitat and migration corridors, landforms, and trees. *[Source: Existing General Plan, Community Development Policy 22A and Existing General Plan, Community Development Program 22.2, modified]]*
- ENV-4.2**      **Natural Habitat Protection**  
**SUS** Preserve, protect, and improve remaining natural habitats, sensitive habitats for special status species, waterways, and wetlands. *[Source: New Policy]*
- ENV-4.3**      **Fish Bypass Facilities**  
**SUS** Support efforts of the County to determine the feasibility of constructing fish bypass facilities for flood control drop structures in area creeks. *[Source: Community Development Program 22.5]*
- ENV-4.4**      **Biological Resources Assessment**  
Require that applicants for development projects proposed to be in or adjacent to critical habitat areas to complete a site-specific biological resources assessment as part of the development review process and modify designs or add mitigations to reduce potential impacts. *[Source: New Policy]*
- ENV-4.5**      **Special Status Species Protection**  
Cooperate with State and Federal agencies to ensure that new development does not substantially affect any special status species on State or Federal rare, endangered, or threatened species lists. *[Source: New Policy]*
- ENV-4.6**      **Urban Forestation**  
**SUS** Increase urban forestation by promoting urban site design that retains existing trees and includes native species, reducing the urban heat island effect. *[Source: New Policy]*





## 8.3 Historic and Cultural Resources

Contra Costa County and the greater San Francisco Bay Area have a long, rich history of human habitation, with the earliest known records dating from around 200 BC. In general, archaeological research has focused on the coastal San Francisco Bay Area, where large shell mounds were easily identified in the landscape. Native American occupation of the region included the areas of modern Walnut Creek and Pleasant Hill. The larger Bay Area consisted of several independent tribal territories during prehistoric and early historic periods, including the Bay Miwok language speakers, who occupied the eastern parts of Contra Costa County, from Walnut Creek to the Sacramento-San Joaquin Delta. While the area offered resources that Native American groups could utilize for food and other uses, there are no known ethnographic settlements in the outlying margins of the San Francisco Bay Area that include Pleasant Hill. Lithic scatters, quarries, habitation sites, petroglyph sites, milling features, and isolated burial sites have been documented and have the potential to occur throughout the city and its sphere of influence, however. Archaeological sites with evidence of these cultures are still found in and around Pleasant Hill. State records list seven Native American archeological sites in Pleasant Hill.

The city also has several historic homes and places, such as Rodgers Ranch and others listed below.

### ***Rodgers Ranch Heritage Center***

The Rodgers family moved to the area in 1868 and established a 149-acre ranch where they grew crops and were active members of their community. Over time, the ranch changed hands and reduced in size until the original buildings were transformed into a heritage park at the recommendation of the Pleasant Hill Historical Society. Now, the Rodgers Ranch Heritage Center is just over two acres in size and includes the Rodgers' farmhouse and an urban farm that serves as an education center, hosting workshops and events including farm-to-table culinary courses, master and organic gardening, and permaculture. The site is owned and managed by the Pleasant Hill Recreation and Park District (Rec. & Park) and offers a summer day camp, hosts field trips and a harvest festival, and provides tours to the public.

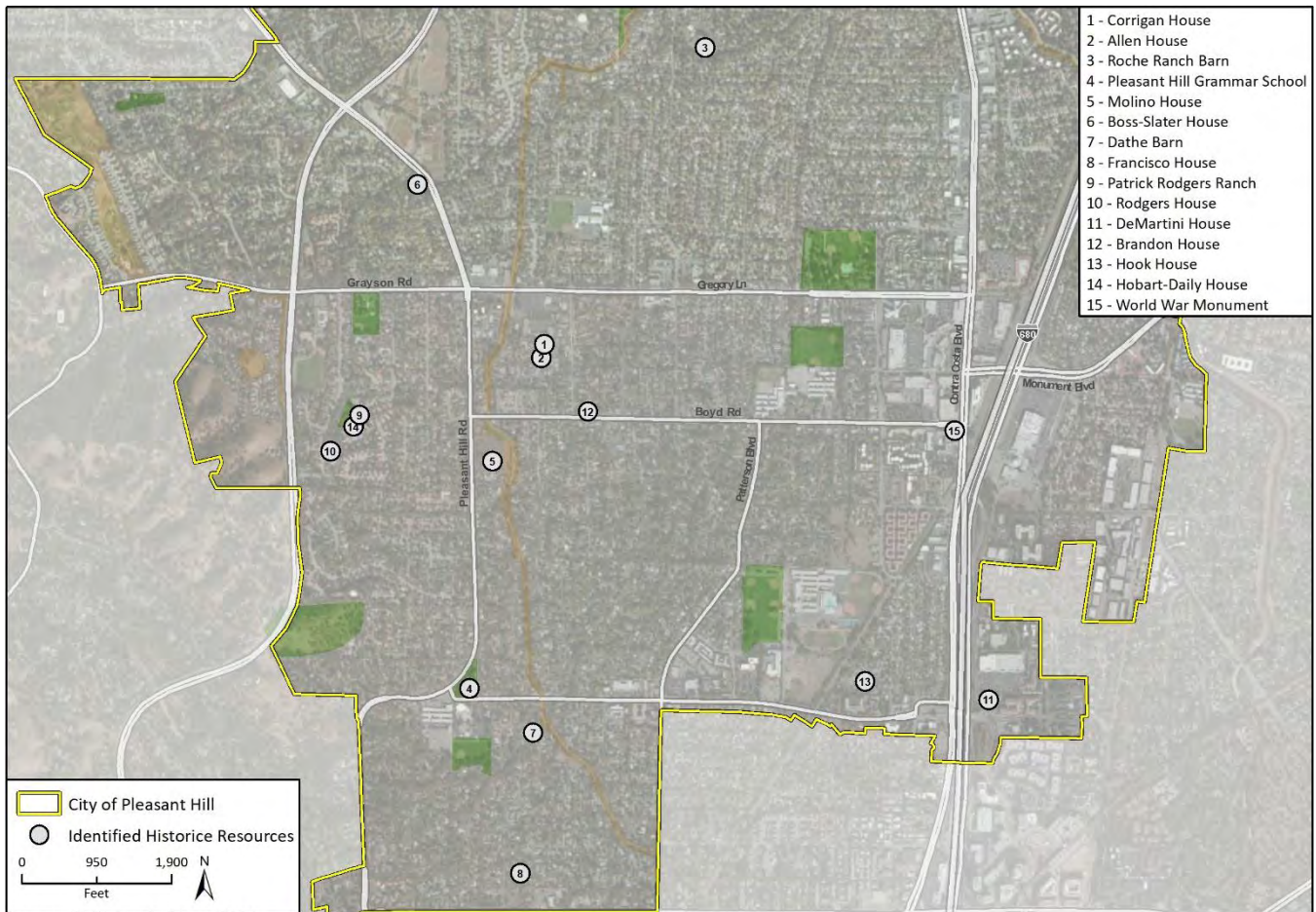
### ***Potential Historic Sites and Structures***

A partial list of other buildings and structures of potential historic significance is depicted on Figure 8-1 and include the following:

- **Corrigan House.** Two-story wood frame farmhouse built late 1910s. Adjacent chicken coop remodeled as living quarters.
- **Allen House.** Built in the 1920s as main house on same site as Corrigan House.
- **Roche Ranch Barn.** California style, 1905, with central loft and side stables.
- **Pleasant Hill Grammar School.** Oldest public building in city, 1920. Owned by Rec. & Park.
- **Boss-Slater House.** A one-story cottage that may have been moved from Slater Avenue.
- **Dathe Barn.** White frame two-story barn with front hayloft opening.
- **Francisco House.** Two-story cottage style with exposed rafters.
- **Patrick Rodgers Ranch.** Wood farmhouse and California style barn, 1868. Owned by Rec. & Park District. Listed on the National Register of Historic Places in 1991.
- **Rodgers House.** White frame 19th-century house.
- **DeMartini House.** One-story home of an early community leader. Now used as a place of business.

- **Brandon House.** Berkeley style, 1921, shingle house with hip roof, fireplace. May have been moved from Brandon Road.
- **Hook House.** Arts and crafts bungalow.
- **Hobart-Daily House.** Ranch style house, 1938, built by then-owner of Rodgers Ranch.
- **World War I Monument.** Originally dedicated in 1927, this monument was relocated when Interstate 680 was built. It honors 76 men and one woman from the county who died in World War I. The World War I Monument is maintained by Contra Costa County.

**Figure 8-1 Potential and Designated Historic Structures Identified within Pleasant Hill**



The Zoning Ordinance contains overlay districts intended to protect and enhance historical and cultural resources, including by guiding development around them. The historic overlay district has been applied only to the Rodgers Ranch, discussed above. The cultural resources overlay district has not been utilized.

**ENV-5**

Protect cultural and tribal resources. *[Source: New Goal]*

**ENV-5.1****Construction Monitoring**

Require new development to monitor grading, ground-disturbing, and other major earth-moving construction activities by a qualified professional during construction in previously undisturbed areas or those with known archaeological resources.

*[Source: New Policy]*

**ENV-5.2****Consultation**

Perform required consultation with the appropriate tribal organization(s) as part of projects subject to the California Environmental Quality Act (CEQA). *[Source: New Policy]*

**ENV-5.3****Cultural Resources Treatment**

Ensure that treatment of any cultural resources discovered during site grading complies with State guidelines. *[Source: New Policy]*

**ENV-6**

Maintain designated historic sites and structures. *[Source: Existing General Plan, Community Development Goal 25, modified]*

**ENV-6.1****Community Education**

Work with the Pleasant Hill Library, community partners, and Pleasant Hill Historical Society to obtain, maintain, and display historical reference materials that provide educational background on the history of Pleasant Hill. *[Source: New Policy]*

**ENV-6.2****Historic Structures**

Encourage the maintenance and preservation of historic structures and appropriately designate and protect historic sites and structures. *[Source: Existing General Plan, Community Development Policy 25.A, modified]*

## 8.4 Air Quality

Air quality is both a local and regional issue and has an important influence on the health and quality of life in Pleasant Hill. Poor air quality contributes to higher rates of asthma, respiratory disease, and some types of cancer. Most air-borne emissions come from vehicles using I-680 and major roadways such as Contra Costa Boulevard. Because pollutants drift across city boundaries, traffic on other nearby freeways, major roadways, and the air traffic at Buchanan Field Airport also impact air quality in the city.

Pleasant Hill overall has good air quality that is generally better than statewide and nationwide averages. But, like most of California, Pleasant Hill experiences ozone pollution in the summer months and particulate matter pollution in the winter months. The ozone and particulate matter pollution can also be exacerbated by natural hazard events, such as smoke from wildland fires. Air quality monitoring for Pleasant Hill indicates that the overall ozone and particulate pollutants are relatively low compared to other areas in the state, with fewer than seven days a year from 2015 to 2017 exceeding national standards.

**ENV-7**

Meet or exceed State and Federal Air quality standards. *[Source: New Goal]*

**ENV-7.1**

**Air Quality Improvements**

SUS

Promote actions that improve air quality and help meet air quality attainment standards. *[Source: Existing General Plan, Safety and Noise Policy 8A, modified]*

**ENV-7.2**

**Air Quality Strategies**

SUS

Work with local and regional agencies to develop a consistent and effective approach to air quality planning and management that includes strategies to reduce vehicle trips, wood burning, and the burning of fossil fuels. *[Source: Existing General Plan, Safety and Noise Program 8.1]*

**ENV-7.3**

**Fuel-efficient Vehicles**

SUS

Require fuel efficiency and cleaner fuels for vehicles, including construction and maintenance equipment, by replacing the City vehicles and equipment with zero-emission vehicles and equipment and requesting that City contractors use reduced- or zero-emission fleets. *[Source: New Policy]*

**ENV-7.4**

**Landscape Equipment**

SUS

Prohibit the use of gas-powered landscape equipment and publicize the benefits and importance of alternative technologies. *[Source: New Policy]*

**ENV-7.5**

**Sensitive Receptors**

SUS

The City shall require that any new development considered a sensitive receptors (e.g., residential units, schools, medical facilities) proposed within 1,000 feet of I-680 or other major sources of toxic air contaminants prepare an operational health risk assessment. If TACs exposure at new sensitive receptor sites would exceed BAAQMD health risk thresholds, the City shall require mechanical air filtration or other measures be included as part of the project in order to reduce health risk exposure to acceptable levels.. *[Source: New Policy]*

**ENV-7.6**

**Best Management Construction Practices**

SUS

Require new development to use best management construction practices in accordance with BAAQMD standards. *[Source: New Policy]*



*NOTE: Goals and policies pertaining to mobile source reductions relating to vehicle miles traveled (VMT) are covered in the Mobility Element.*

## 8.5 Sustainability

A healthy and sustainable environment is one of the most critical components to a healthy life, high quality of living, and the long-term maintenance of important natural resources. By efficiently managing natural resources and reducing greenhouse gas emissions (GHG), Pleasant Hill can address the effects of climate change and preserve the quality of life in our community.





This section focuses on community sustainability through goals and policies targeting energy conservation, green building, greenhouse gas reduction, and recycling and solid waste. These efforts will result in a cleaner, healthier, and more ecologically responsible Pleasant Hill.

### **Greenhouse Gas Emissions**

California has become a recognized global leader in the effort to reduce GHG emissions through establishing wide-ranging GHG reduction strategies. The primary GHG reduction legislation driving State and city climate action plans includes Assembly Bill (AB) 32, Senate Bill (SB) 32, and Executive Order (EO) B-55-18. These laws and directives have charted a path towards carbon neutrality for California by 2045.

In addition to the landmark climate change bills, California has also passed legislation that increases energy efficiency in buildings (Title 24), improves fuel efficiency in vehicles (Advanced Clean Cars Program), and most recently legislation that calls for 100 percent carbon neutral electricity by 2045 (SB 100).

While the impacts of climate change are imposing and the use of fossil fuels that drive it pervasive, there are solutions. National, state, and local governments worldwide are making changes to reduce the impacts of climate change to a manageable level. What is more, places like California have been making substantial reductions in GHG emissions while continuing to grow its gross domestic product by decarbonizing the economy and investing in clean energy and next-generation technologies.

Generally, there are two primary types of strategies to address climate change: mitigation and adaptation. Mitigation strategies focus on slowing or halting future warming by reducing or capturing GHG emissions. Examples include planting trees to absorb carbon dioxide from the air, increasing fuel efficiency to reduce the amount of carbon dioxide emitted per mile driven, and conserving electricity to lower GHG emissions associated with energy production. While mitigation strategies will curb some GHG emissions, these efforts are unlikely to halt climate change entirely. Adaptation strategies, which are discussed in the Safety Element of the General Plan, focus on actions to moderate the impacts of climate change. Examples of adaptation include use of drought-tolerant landscaping, reduced impermeable surfaces, and green building codes.

### **Energy Efficiency and Electrification**

Increasing energy efficiency and the availability of renewable energy has great potential to contribute to GHG reduction and to preserve resources. The energy needed to light, heat, and power buildings is a stationary source of GHG emissions if produced using fossil fuels, the reduction of which is a key goal throughout the state. Energy use reductions can be achieved in a variety of ways, including optimizing energy efficiency in new construction, retrofitting existing buildings that facilitate energy use reduction; promoting energy and water conservation and efficiency; and encouraging the use of renewable energy. Energy audits for residential and commercial uses and developer and building contractor education on energy conservation and efficiency techniques are other approaches to energy conservation. As California moves toward a cleaner energy grid and greater energy efficiency, residents and businesses in Pleasant Hill can take advantage of numerous programs, incentives, and improvements that foster greater energy independence, lower energy costs, and greener and safer energy options.

Natural gas is a common source of energy in many buildings in Pleasant Hill, as it is in other cities and counties in California and across the country. Reducing and potentially eliminating the use of natural gas in existing and future buildings is important to both meeting climate change goals and to creating safer cities and homes. Achieving greater electrification will also help communities reach the goal of carbon neutrality by 2045 set by Senate Bill 100. An all-electric building that uses 100 percent



renewable energy has zero carbon emissions, which can go a long way toward helping Pleasant Hill, Contra Costa County, and California reach its energy and climate change goals.

The City of Pleasant Hill adopted the California Building Standards Code by reference in 2019, including sections that govern energy efficiency (Title 24, Part 6) and Green Building Standards (Title 24, Part 11), also known as CALGreen. Developed as part of a comprehensive effort to meet the AB 32 GHG reductions schedule (reducing GHGs to 1990 levels by 2020), CALGreen provides cost-effective approaches to reduce energy use and water consumption, encourage access to alternate transportation modes, and other measures that provide energy reduction benefits.

## Solid Waste Reduction and Recycling

Some of the solid waste generated by residents and businesses in Pleasant Hill is diverted through recycling and reuse. The Solid Waste ordinance (Pleasant Hill Municipal Code Section 13.10 et seq.) regulates the way solid waste and recycling is managed in the city, including the services of franchise waste haulers. The Solid Waste and Recycling Plan includes strategies to divert from landfills and obtain grants that are used to encourage recycling of used motor oil and beverage containers. This Plan is a State requirement that indicates how the City will promote waste source reduction, recycling and composting, and environmentally safe transformation and disposal to help achieve the statewide goal of source-reduction, recycling, or composting of 75 percent of solid waste generated in California.

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### ENV-8

Become a low carbon community that strives to exceed State GHG reduction goals by 2040. *[Source: New Goal]*

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#### ENV-8.1

##### Meet State Emission Reduction Targets

Reduce GHG emissions at a rate that meets the long-term State target to reduce emissions by at least 66 percent below 2005 levels by 2040. *[Source: New Policy]*

#### ENV-8.2

SUS

##### Health and Economic Benefits

Prioritize implementation of GHG reduction projects that provide health and economic benefits for the community. *[Source: New Policy]*

#### ENV-8.3

SUS

##### Municipal GHG Reduction

Implement cost-effective GHG reduction strategies for City facilities and operations. *[Source: New Policy]*

#### ENV-8.4

SUS

##### Land Use and Transportation Priorities

Support land uses and transportation improvements that prioritize alternative transportation modes that will reduce the number and length of automobile trips. *[Source: New Policy]*

#### ENV-8.5

SUS

##### GHG Thresholds

Require new development projects that would exceed GHG thresholds to feasibly mitigate all GHG emissions and locally offset any remaining GHG emissions that exceed the threshold consistent with the City standards. *[Source: New Policy]*



- ENV-8.6**      **Electric Vehicle Infrastructure**  
SUS      Require installation of electric vehicle charging stations as a ratio of total required parking for new and redeveloped commercial and multi-family projects and require new single family residential development to include to 220 volt outlets in all garages. *[Source: New Policy]*
- ENV-8.7**      **Grant Funding**  
SUS      Seek grant funding to support implementation of GHG reduction projects in municipal facilities, including rebates and other incentive opportunities. *[Source: New Policy]*
- ENV-8.8**      **Preferences for Firms Using Reduced-emissions Equipment**  
SUS      Give preference for City contracts to firms using reduced-emissions equipment, including for services such as trash collection and landscaping. *[Source: Existing General Plan, Safety and Noise Program 8.5, modified]*
- ENV-8.9**      **Sustainable Community Facility Design**  
SUS      Encourage the incorporation of sustainable design features in community facilities to reduce energy demand and environmental impacts, such as solar reflective roofing, permeable pavement, and incorporation of shade trees. *[Source: New Policy]*

ENV-9	Improve efficiency and conservation in all development. <i>[Source: New Goal]</i>
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- ENV-9.1**      **Energy Conservation Education**  
SUS      Partner with utility providers to educate residents, employers, and business owners/managers on the energy conservation programs available. *[Source: New Policy]*
- ENV-9.2**      **Energy Efficiency Improvements**  
SUS      Require energy efficiency improvements, including alternative energy technology, be made as a part of residential and commercial building renovations when a building permit application is submitted to the City. *[Source: New Policy replaces Community Development Policy 23A, modified]*
- ENV-9.3**      **Local Partnerships**  
SUS      Partner with local businesses and organizations to secure grants and incentives that facilitate energy efficiency and renewable energy production. *[Source: New Policy]*
- ENV-9.4**      **Municipal Buildings Efficiency and Conservation**  
SUS      Require the design new public buildings to exceed State standards for water and energy efficiency. *[Source: Existing General Plan, Community Development Program 23.1, modified]*
- ENV-9.5**      **Battery Energy Storage Systems**  
SUS      Encourage battery energy storage systems as an option for optimizing the management of electricity generated by renewable resources. *[Source: New Policy]*

**ENV-9.6**

SUS

**Urban Tree Canopy**

Encourage discretionary development to include the planting of shade trees on each property and within parking areas to reduce the retention and radiation of heat.

*[Source: New Policy]*

**ENV-9.7**

SUS

**Energy-Efficient Lighting**

Require public facilities to use energy-efficient lighting technology for outdoor and indoor spaces. *[Source: New Policy]*

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**ENV-10**

Become a low or zero-waste community with convenient and effective options for recycling, composting, and diverting waste from landfills. *[Source: New Goal]*

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**ENV-10.1**

SUS

**Franchise Agreements**

Ensure waste franchise agreements and programs offer progressively higher rates of waste diversion with the goal of attaining and eventually exceeding the mandated 75 percent diversion rate. *[Source: Existing General Plan, Community Development Policy 23B, modified]*

**ENV-10.2**

SUS

**Green Purchasing**

Evaluate and implement green purchasing options across all City departments and consider the life cycle effects of purchases. *[Source: New Policy]*

**ENV-10.3**

SUS

**Zero Waste Education**

Provide simple zero-waste education programs in City facilities and other organizations and partner with schools to facilitate education programs about recycling, composting, and reusing with standardized zero-waste materials. *[Source: New Policy]*

**ENV-10.4**

SUS

**Composting Equipment**

Provide composting equipment at community facilities and events to encourage public and commercial composting. *[Source: New Policy]*

**ENV-10.5**

SUS

**Recycled Building Materials**

Encourage new development projects to use recycled building materials where cost-effective and structurally feasible. *[Source: New Policy]*

**ENV-10.6**

SUS

**Building Salvage and Roadway Construction Projects**

Require maximization of building salvage and recycling in remodeling or building demolition or roadway reconstruction projects when issuing demolition and encroachment permits. *[Source: New Policy]*

**ENV-10.7**

SUS

**Recycling and Waste Diversion**

Evaluate recycling and waste diversion opportunities periodically to consider new opportunities to further increase waste diversion. *[Source: New Policy]*



- ENV-10.8**      **Trash Reduction**  
SUS      Encourage the community to continue meeting the San Francisco Bay Regional Water Control Board Permit Requirements for Trash Reduction. *[Source: New Policy]*
- ENV-10.9**      **Reduction of Non-Recyclable/Compostable Products**  
SUS      Reduce the amount of non-recyclable waste in the community. *[Source: New Policy]*
- ENV-10.10**    **On-Site Facilities in Existing Development**  
 Require the City and encourage commercial businesses and business parks to install recycling and compost receptacles on their premises. *[Source: New Policy]*
- ENV-10.11**    **Reduce Waste in Operations**  
 Require the City and encourage residents and businesses to reuse products, choose post-consumer recycled content products, reduce packaging waste, and use non-toxic cleaning products to reduce waste and greenhouse gas emissions. *[Source: New Policy]*

## 8.6 Implementation Programs

		Responsible	2021 – 2025	2026 – 2030	2031 – 2040	Annual	Ongoing
Programs	Policy Implemented	Supporting Department(s)					
<p><b>A</b>      <b>Water Conservation Education</b></p> <p>Update promotion and educational materials on communitywide water conservation, including but not limited to City website updates and quarterly newsletters advertising regional rebates and programs. <i>[Source: New Implementation Program]</i></p>	ENV-1.3	Planning Division					■
		Engineering Division					
<p><b>B</b>      <b>Water Conservation Programs</b></p> <p>Develop and market a program to facilitate the installation of water-conserving equipment or infrastructure beyond that already required by the City or State. <i>[Source: New Implementation Program]</i></p>	ENV-1.4 ENV-1.5	Planning Division		■			
		Engineering Division					

Programs		Policy Implemented	Responsible Supporting Department(s)	2021 – 2025	2026 – 2030	2031 – 2040	Annual	Ongoing
<b>C</b>	<b>Public Facility Water Conservation Programs</b>  Prepare and update every five years an action plan for water conservation measures in existing and new public facilities, including using recycled water for public roadways and facility irrigation. <i>[Source: New Implementation Program]</i>	ENV-1.4 ENV-1.5	Engineering Division	■	■	■		■
<b>D</b>	<b>Water Conservation Ordinance</b>  Review and update every five years, if necessary, the water-efficient landscape standards for consistency with State provisions. <i>[Source: New Implementation Program]</i>	ENV-1.4 ENV-1.5 ENV-1.6 ENV-1.7	Planning Division	■	■	■		■
<b>E</b>	<b>Development Standards</b>  Review and update every five years, if necessary, the citywide design guidelines to include latest technologies for permeable surfaces, parking lot drainage, and other ways to reduce pollution in urban stormwater runoff. <i>[Source: New Implementation Program]</i>	ENV-2.2 ENV-2.3 ENV-2.4 ENV-2.5	Engineering Division  Planning Division	■	■	■		■
<b>F</b>	<b>Litter and Debris Removal in Creeks</b>  Create a citywide litter and debris removal and cleanup program that aims to address sources of pollution that affect local creeks and waterways by partnering with local groups, organizations, and agencies. <i>[Source: New Implementation Program]</i>	ENV-2.8	City Manager	■				





Programs		Policy Implemented	Responsible Supporting Department(s)	2021 – 2025	2026 – 2030	2031 – 2040	Annual	Ongoing
<b>G</b>	<b>Erosion Control</b>  Revise and update every five years the Municipal Code as necessary to require best practices that reduce soil erosion and minimize or eliminate the effects of grading on loss of topsoil. <i>[Source: New Implementation Program]</i>	ENV-3.1 ENV-3.3 ENV-3.7 ENV-3.8	Engineering Division	■	■	■		■
<b>H</b>	<b>Creek Restoration Funding</b>  Seek regional, State, and federal funding sources to reclaim, restore, and enhance local creeks and waterways in order to:  <ul style="list-style-type: none"> <li>• Reduce embankment erosion and deterioration;</li> <li>• Clearing debris to maintain free flowing waterways; and</li> <li>• Stabilize and restore stream banks through the planting of new vegetation. <i>[Source: New Implementation Program]</i></li> </ul>	ENV-3.4 ENV-3.4	Engineering Division  City Manager					■
<b>I</b>	<b>Planting Education</b>  Provide residents with education and informational sources on invasive plants species to avoid planting, as well as locally native plants appropriate to Contra Costa County and Pleasant Hill. <i>[Source: New Implementation Program]</i>	ENV-3.10	Planning Division	■				

Programs	Policy Implemented	Responsible Supporting Department(s)	2021 – 2025	2026 – 2030	2031 – 2040	Annual	Ongoing
<p><b>J Tree Planting and Maintenance Strategy</b></p> <p>Prepare and update as necessary the tree planting and maintenance strategy to reduce ambient air temperature on hot sunny days. This plan should be reviewed and updated, as appropriate. <i>[Source: Existing General Plan, Community Development Program 23.5, modified]</i></p>	ENV-4.6	Maintenance Division  Planning Division  Engineering Division					■
<p><b>K Tribal Construction Monitors</b></p> <p>Require tribal monitor(s) during all activities in areas with cultural resources of interest to local Native American tribes. Both monitors shall observe grading, ground-disturbing, and other earth-moving activities. <i>[Source: New Implementation Program]</i></p>	ENV-5.1	Planning Division					■



Programs	Policy Implemented	Responsible	2021 – 2025	2026 – 2030	2031 – 2040	Annual	Ongoing
		Supporting Department(s)					
<p><b>L Tribal Consultation</b></p> <p>Require the determination of the significance of the cultural resource(s) and development and implementation of any data recovery program shall be conducted by a qualified professional and in consultation with interested Native American tribes. All Native American human remains and associated grave goods shall be returned to their most likely descendent and repatriated. The final disposition of artifacts not directly associated with Native American graves shall be negotiated during consultation with interested tribes. If Native American tribes do not accept the artifact, it shall be offered to an institution staffed by qualified professionals, as determined by the City Planner. Artifacts include material recovered from all phases of work, including the initial survey, testing, indexing, data recovery, and monitoring. <i>[Source: New Implementation Program]</i></p>	<p>ENV-5.1 ENV-5.2 ENV-5.3</p>	<p>Planning Division</p>					■
<p><b>M Identify Historic and Cultural Sites</b></p> <p>Update the historic and cultural resources survey to identify historic or cultural sites eligible for resource protection, with specific consideration of structures 45 years old and older. <i>[Source: Existing General Plan, Community Development Program 25.2, updated, modified]</i></p>	<p>ENV-6 ENV-6.1</p>	<p>Planning Division</p>					■

Programs	Policy Implemented	Responsible	2021 – 2025	2026 – 2030	2031 – 2040	Annual	Ongoing
		Supporting Department(s)					
<p><b>N Clean Fleet Program</b></p> <p>Research potential funding mechanisms, including grant funding, to prepare and implement a clean fleet program to purchase or lease of zero emission, alternative energy vehicles and equipment with the objective of replacing all fossil fuel vehicles and equipment. <i>[Source: New Implementation Program]</i></p>	ENV-7.3 ENV-10.2	City Manager  Maintenance Division		■			
<p><b>O Climate Action Plan</b></p> <p>Prepare a Climate Action Plan that addresses all changes in State law pertaining to climate change and emissions, as well as setting GHG threshold targets for the City. <i>[Source: New Implementation Program]</i></p>	ENV-8.1 ENV-8.3	Planning Division  City Manager		■			
<p><b>P GHG Reduction and Source Alignment</b></p> <p>Pursue a diverse mix of GHG reduction strategies across a range of municipal activities that generate GHG emissions and perform municipal GHG inventories at least once every five years to track results for implementation elsewhere. <i>[Source: New Implementation Program]</i></p>	ENV-8.3	Engineering Division  Planning Division  Building Division		■	■		
<p><b>Q Electric Vehicle Parking Regulations</b></p> <p>Revise and update the Zoning Ordinance Parking regulations, as needed, to reflect current best practices for electric vehicle charging considering new state legislation banning combustion engine vehicle by 2035. <i>[Source: New Implementation Program]</i></p>	ENV-8.6	Planning Division					■



Programs	Policy Implemented	Responsible	2021 – 2025	2026 – 2030	2031 – 2040	Annual	Ongoing
		Supporting Department(s)					
<p><b>R Energy Conservation Education</b></p> <p>Create a program to educate, provide access to a clearinghouse of available grants, and other funding sources to promote energy conservation and the application of alternative energy technology. <i>[Source: New Implementation Program]</i></p>	<p>ENV-9.1 ENV-9.3</p>	<p>Planning Division</p>	■				■
<p><b>S Zero Waste</b></p> <p>Prepare and update as necessary a zero-waste action plan to maximize waste diversion. <i>[Source: Implementation Program]</i></p>	<p>ENV-10.1 ENV-10.2 ENV-10.3 ENV-10.4 ENV-10.5 ENV-10.6 ENV-10.7 ENV-10.8</p>	<p>Building Division  City Manager</p>					■
<p><b>T Recycled and Salvaged Building Materials</b></p> <p>Create educational information for distribution to development project applicants on the use of recycled materials in new development and redevelopment projects and roadway projects. <i>[Source: Implementation Program]</i></p>	<p>ENV-10.6 ENV-10.7 ENV-10.8</p>	<p>Building Division  Engineering Division</p>					■
<p><b>U Ban of Non-Recyclable/Compostable Materials</b></p> <p>Develop an ordinance to ban the use of styrofoam, plastics straws, and other petroleum-based, non-recyclable, or non-compostable materials used for food and beverage services, including to-go and delivery items. <i>[Source: Implementation Program]</i></p>	<p>ENV-10.9</p>	<p>City Manager  City Administration  Code Enforcement</p>		■			