Conservation

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8.1 SUSTAINABLE DEVELOPMENT
8.2 NATURAL RESOURCE CONSERVATION
8.3 AIR QUALITY AND PUBLIC HEALTH

Introduction

The principles of conservation stress humankind's relationship to the natural environment and understand the benefits conferred socially as well as environmentally. Socially, these benefits can accrue to all people as well as future generations so there can be a sense of equity in the appropriate practice of conservation and the implementation of sustainable development.

Many elements of conservation and sustainability have much broader geographic and political relationships and may be more suited to implement on a citywide or even regional basis. However, there is much that can be done at the local community level and individual communities can also be at the forefront of the policy discussion. The General Plan Conservation Element is for the City to become an international model of sustainable development, and to provide for the long-term conservation and sustainable management of the City's natural resources, recognizing they define the City's identity, contribute to its economy, and improve its quality of life. Specific element policies relate to sustainable development, open space and landform preservation, water resource management, urban runoff management, air quality, biological diversity, wetlands, energy independence, urban forestry, and environmental education.

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The Golden Hill community recognizes the importance of natural resources and the need for conservation. Many residents are proud of the community's environmental tradition, and actively participate in maintaining clean and healthy natural surroundings. Preservation of natural features and resources will depend on the integration of sustainable development practices. Implementation of the Conservation Element's policies and recommendations through development project review, infrastructure investment, and individual action is intended to conserve natural resources and minimize ecological footprints within the community.

CONSERVATION ELEMENT GOALS

- Sustainable development and 'green' building practices implemented to reduce dependence on non-renewable energy sources, lower energy costs, reduce emissions and water consumption.
- The natural character of open space preserved for its biological diversity as well as important relief from urban development.
- Natural canyon landforms and habitat protected from building encroachment and incompatible uses.
- Scenic resources and public access to open space maintained and enhanced where needed.
- Sustainable storm water management techniques applied to support the surrounding landscape and reduce impacts on the surrounding canyons.
- Foster a community that is supportive of regional and local initiatives to improve air quality.

Preservation of natural features and resources will depend on the integration of sustainable development practices.

GENERAL PLAN CROSS-REFERENCE TABLE

The General Plan establishes citywide policies to be cited in conjunction with a community plan. Policies may also be further referenced, emphasized or detailed in a community plan to provide community-specific direction. General Plan Conservation Element policies particularly significant to the Golden Hill Community Plan are listed by their notation in the cross reference table below.

TABLE 8-1: *GENERAL PLAN-RELATED TOPICS AND POLICIES*

Community Plan Topic	General Plan Policy
Reduce the community's carbon footprint	CE-A.2
Employ sustainable/green building techniques	CE-A.5
Reduce construction and demolition waste	CE-A.8
Use sustainable building materials	CE-A.9
Implement sustainable landscape design and maintenance	CE-A.11
Reduce urban heat island effect	CE-A.12
Conserve landforms, canyon lands & open space	CE-B.1
Apply Environmentally Sensitive Lands Regulations	CE-B.2
Incorporate trails and greenways	CE-B.5
Conserve water resources	CE-D.1(d) & (h), CE-D.5
Control urban runoff	CE-E.2
Improve air quality by landscaping	CE-F.4
Protect biological diversity within open space	CE-G.1, CE-G.3
Develop a sustainable urban forest	CE-J.1
Support urban agriculture	CE-L.3

8.1 Sustainable Development

The General Plan bases its goals and policies regarding climate change and natural resources on a number of basic principles that are intended to guide future development in ways that conserve natural, non-renewable resources through sustainable development practices. This model of development considers a balance between natural resources and economic prosperity while protecting the public health, safety and welfare and reducing our ecological footprint.

The City's main responsibility when implementing State climate change laws and guidelines center around its authority to regulate land use. Through sensible land use regulation that reduces the number of vehicle miles travelled and promotes sustainable building and development practices, the City can achieve a meaningful reduction in carbon emissions. Actions that reduce dependence on the automobile by promoting walking, bicycling and transit use are key aspects of any strategy to reduce carbon emissions.

Strategies included in the Conservation Element address: development and use of sustainable energy types, including solar; reuse or recycling of building material; adaptively retrofitting and reusing existing buildings; constructing energy efficient buildings with healthy and energy-efficient interior environments; creating quality outdoor living spaces; improving materials recycling programs; and, sustainable local food practices.

At the community plan level, policies and initiatives that further General Plan sustainable development policies focus on those that reduce dependence on the private automobile, protect and enhance the urban forest, and provide for storm water infiltration, water conservation and other green building practices. The Golden Hill community is uniquely positioned to reduce dependence on the private automobile due to the community's central location in the region, walkable street grid, and proximity to transit.

POLICIES

CE-1.1 Build-upon the community's existing street grid network to create a more functional environment for pedestrians and bicyclists and reduce local dependence on the automobile as a mode of transportation (refer to Urban Design Element section, Streetscape and Public Realm, Mobility Element section, Active Transportation).

CE-1.2 Implement the Green Building Practices and Sustainability recommendations of the Urban Design Element.

CE-1.3 Existing buildings with important architectural or historic character are valued within the community. The most comprehensive energy reduction strategy is to promote the continued use or adaptive reuse of these buildings as well as any needed upgrades to their energy use efficiency. Structures that meet the Historical Resources criteria for designation shall be preserved and repositioned if necessary to maintain their economic viability.

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CE-1.4 Create a meaningful, visually and functionally cohesive outdoor gathering space within multifamily developments that considers protection from excess noise, shadow impacts, and maximizes the positive effects of prevailing breezes to reduce heat and provide natural ventilation to individual residences.

CE-1.5 Encourage the use of solar energy systems to supplement or replace traditional building energy systems.

CE-1.6 Provide and/or retrofit lighting within the public-right-of-way that is energy efficient. Use solar powered lights where practical.

CE-1.7 Seek small City-owned sites not suitable for recreation use as opportunities for community gardens.

Energy reduction can be achieved through the continued use or adaptive reuse of the existing building stock as well as any needed efficiency upgrades.

CE-1.8 Encourage underdeveloped commercial lots and buildings for use as small farms with associated sale of agricultural products.

CE-1.9 Promote community initiatives for locally-sourced and more environmentally sustainable goods and services.

CE-1.10 Implement the Urban Forest and Street Trees recommendations of the Urban Design Element, including the development of a street tree master plan that can be applied to private development, community planting projects and the pursuit of grant funding.

CE-1.11 Design and construct development to retain significant, mature and healthy trees located within required landscape setbacks, and within other portions of the site as feasible.

CE-1.12 Add or replace street trees to fill existing gaps and provide continuous, regularly spaced tree canopies.

8.2 Natural Resource Conservation

Conservation efforts are important for the community's remaining open spaces, canyon landforms, natural habitats and public views. Local community initiatives to reduce consumption of potable water and effectively manage storm water runoff can also help achieve important regional goals to reduce dependence on imported water, and protect water quality within streams, beaches and bays. While the General Plan, this community plan, San Diego's Multiple Species Conservation Program (MSCP), and zoning regulations provide the primary legal framework for natural resource conservation, the community's residents play an important role in determining the ultimate success of preservation and restoration programs. The boundaries of many residential neighborhoods surround the canyon areas providing an opportunity not only for visual enjoyment of these unique areas but also involvement in protection, education and restoration efforts.

NATURAL RESOURCE MAPPING

As part of the community plan update process the areas designated as open space in the community plan was reviewed using detailed maps available with Geographic Information Systems (GIS) software. The areas intended for preservation by the San Diego MSCP Subarea Plan were also reviewed. This mapping effort reviewed the following GIS data layers:

- Existing MHPA and Community Plan Open Space boundaries
- 1992 aerial mapping
- Public Ownership
- City Dedicated and Designated Open Space Lands
- SANGIS Conserved Lands database
- Topographical data
- SANGIS Vegetation layers – 1997 and 2012
- 2012 aerial mapping

As a result, many areas designated Open Space in the 1988 community plans were found to contain a significant amount of existing development (e.g. houses, streets). The MHPA boundary was particularly affected and did not correlate well to either the community plan open space boundary nor to the actual location of sensitive biological resources intended for conservation. While the framework for open space conservation in the 1988 Golden Hill community plan allowed some development within open space, especially along canyon edges, the current framework established by the General Plan and MSCP intends mapped open space distinctly for conservation of sensitive natural resources and limits any type of development that impacts these resources. Therefore, a comprehensive, systemic approach was developed in order to evaluate boundaries of community plan open space and the MHPA with respect to their protection of natural resources. This evaluation resulted in reconfiguring the open space boundary in the 1988 community plan to exclude most developed areas from open space due to their lack of natural resources as well as the long-established land use pattern in the community. Areas that contained sensitive biology that were previously excluded from the MHPA were also added as part of a MHPA boundary line correction. The correction for the three communities resulted in the addition of 89.2 acres of land containing sensitive biological resources and steep slopes and the deletion of 65.5 acres of developed/urban lands for a net gain of 23.7 acres to the MHPA (refer to Appendix B).

Canyon open space is an integral part of South Park's residential neighborhoods.

OPEN SPACE, LANDFORMS & NATURAL HABITATS

State law recognizes that open space land is a limited and valuable resource that should be conserved wherever possible. Open space serves as visual relief to urban development adding character and identity to a community and its neighborhoods. Protecting the community's open spaces serves as a fundamental component of natural resource conservation efforts by protecting canyon landforms, steep hillsides, sensitive biology, scenic resources & public views. Open space also has value for managing urban runoff and protecting water resources, understanding geology, as a buffer from climate change, enhancing urban forestry efforts, and as a component of sustainable development. Open Space lands and resource-based parks (e.g. Balboa Park) are also discussed in the Recreation Element as valued resources that may also provide public access and enjoyment. Open Space as a land use applied in the community is discussed in the Land Use Element.

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Canyon landforms are a major defining characteristic of the community and its neighborhoods. Steep hillsides are associated with canyons, and to a lesser extent, the terraced landforms. Through long-standing policies, private development has largely been kept to canyon edges leaving many canyons as valuable open spaces, although development has occurred within steep hillsides to some extent.

Steep slope landforms are common and should be protected from development encroachments and erosion.

Canyon open space interfaces in the community often need attention to erosion control and better management of unwanted edge effects.

32nd Street Canyon is a major landform in the community.

The community includes three major canyon landforms, 32nd Street, 34th Street (Juniper) and Switzer canyons. Switzer and 34th Street Canyons are also shared with the North Park community and Balboa Park. Portions of these canyons have been disturbed by residential development within the canyons and along the canyon rims. Street improvements have also intersected or protruded into these canyons. The overall effect has been to interrupt the natural topographic and biological continuity of the canyon systems. Breaks in the development that surround canyon interfaces also provide important interactive opportunities with open space. Golden Hill Elementary School as well as some informal small parks are located adjacent to canyon open space. Open spaces may be publicly or privately owned. Most publicly-owned parcels within canyon open space are also included as dedicated open space lands for park and recreation use.

MULTIPLE SPECIES CONSERVATION PROGRAM & BIOLOGICAL DIVERSITY

The Multiple Species Conservation Program (MSCP) is a long-term habitat conservation planning program for southwestern San Diego County. The City's MSCP Subarea Plan was adopted in 1997 and the MHPA is the plan's habitat preserve area. The MHPA was designed to be a managed, connected network of habitat and open space to ensure long-term biological diversity. The Subarea Plan provides policies, management directives and acquisition requirements for the preserve as well as Land Use Adjacency Guidelines for development within or adjacent to the MHPA. The MHPA, as shown in Appendix B, covers several of the canyon systems within the community.

Natural habitat areas in the community include the remaining locations of indigenous plant communities, restored native plant communities, and naturalized landscapes mainly found in the canyons and adjacent hillsides. The open space areas include coastal sage scrub, chaparral, grasslands, riparian/wetlands, and native and non-native woodland habitats. Biological diversity refers to the degree of variation of life forms within an ecosystem. These habitats support a variety of migrant and year-round fauna, including California gnatcatcher and Cooper's Hawk, by providing shelter, foraging opportunities, and connectivity to other local and regional habitats.

The community's "urban" canyons provide habitat for native species to continue to reproduce and find new territories, and provide necessary shelter and foraging opportunities for migrating species (primarily avian species). They also contribute to the public's experience of nature and the local native environment. Conserving biodiversity will require effective protection, management, and restoration of remaining natural habitats.

ENVIRONMENTALLY SENSITIVE LANDS REGULATIONS

The Environmentally Sensitive Lands regulations "ESL" are intended to protect, preserve, and, where damaged, restore the environmentally sensitive lands of San Diego. These lands include the steep hillsides, sensitive biological resources, lands within the MHPA, and flood hazard areas found in the community and coastal resources found elsewhere. ESL prohibits disturbance of natural resources wherever they are located within private as well as public property, and contains development regulations that allow development within sites containing environmentally sensitive lands subject to certain restrictions. Development in the community planning area is expected to comply with ESL and any impacts to habitats as the result of development would be mitigated in accordance with the provisions of ESL and the City of San Diego's Biology Guidelines.

POLICIES

CE-2.1 Implement applicable requirements of the Environmentally Sensitive Lands regulations, Biology Guidelines, and MSCP Subarea Plan for preservation, mitigation, acquisition, restoration, and management and monitoring of biological resources.

CE-2.2 Minimize grading of steep hillsides and other significant natural features within the community.

CE-2.3 Revegetate graded areas, and areas of invasive vegetation with native vegetation to restore biological diversity and minimize soil erosion and instability.

CE-2.4 Preserve areas mapped as designated open space through easements, open space dedication and/or fee title ownership to the City (refer to Land Use Element, Figure 2-1).

CE-2.5 Support canyon habitat restoration efforts and invasive species removal by seeking grant funding and working with neighborhood and community groups involved in these efforts.

CE-2.6 Restore or enhance natural biological values and improve visual aesthetics where streets and storm drain systems abut or cross canyons landforms or steep hillsides. Habitat restoration efforts should aid wildlife movement by providing vegetative cover and controlling and directing access to designated trails.

CE-2.7 Repair and retrofit storm drain discharge systems to prevent erosion and improve water quality by adequately controlling flow and providing filtration. Storm drain outfalls should limit the use of concrete in favor of more natural, vegetated designs.

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CE-2.8 Foster local stewardship and develop positive neighborhood awareness of the open space preserve areas with environmental education programs through local schools, community groups, neighborhood and homeowner's associations, and non-profit groups that address the local ecosystem and habitat preservation. Incorporate hands-on learning via neighborhood hikes, or other initiatives that present information in a manner that will increase interest in the natural environment.

CANYON SEWER PROGRAM

During the early 1900's, as the City of San Diego developed, sewer lines were added in the canyons to utilize gravity flow to transport sewage to the west for treatment. Of the 2,894 miles of sewer lines in the city, 253 miles are currently situated in canyons and other environmentally sensitive areas. These pipelines and manholes have historically had limited cleaning because the original maintenance paths to these facilities were not adequately maintained. As a result, a number of sewer spills have occurred within urban canyons or other inaccessible areas over the years. In 2001, in order to address this problem, the City initiated the Long-Term Canyon Sewer Maintenance Program. The focus of the program was to evaluate each of the City's sewer lines in canyons and environmentally sensitive areas for long-term maintenance access needs. The City Council adopted two council policies related to this purpose.

Council Policy 400-13 identifies the need to provide maintenance access to all sewers in order to reduce the potential for spills. The policy requires that environmental impacts from access paths in environmentally sensitive areas should be minimized to the maximum extent possible through the use of sensitive access path design, canyon-proficient maintenance vehicles, and preparation of plans that dictate routine maintenance and emergency access procedures.

Council Policy 400-14 outlines a program to evaluate the potential to redirect sewage flow out of canyons and environmentally sensitive areas and into streets or other accessible locations. The policy includes an evaluation procedure that requires both a physical evaluation and a cost-benefit analysis. Based on the analysis, if redirection of flow outside the canyon is found to be infeasible, a Long-Term Maintenance and Emergency Access Plan is required. The plan would be specific to the canyon evaluated, and would prescribe, long term access locations for routine maintenance and emergency repairs along with standard operating procedures identifying cleaning methods and inspection frequency.

POLICIES

CE-2.9 Evaluate impacts of sewer cleaning and maintenance actives located in the community consistent with Council Policies 400-13 and 400-14 to assure an effective, efficient and environmentally sensitive means to accomplish these activities.

CE-2.10 Continue communication between the community and the City to report sewer spills or other potential problems as quickly as possible to minimize environmental damage and scope of repair.

SCENIC RESOURCES & PUBLIC VIEWS

Scenic resources and public views are intended to be preserved and enhanced. Types of scenic resources considered by this plan include:

- Viewsheds: Generally unobstructed panoramic view from a public vantage point.
- Scenic Overlooks: Views over private property from a public right-of-way.
- View Corridors: Views along public rights-of-way framed by permitted development.

Due to the community's sloping topography, public views (both near and far) are common. The community's topography varies between 60 feet and approximately 280 feet above sea level. Views are particularly associated with the community's natural, scenic amenities of San Diego Bay, Balboa Park, Switzer Canyon, and the 32nd Street and 34th Street canyons. Un-improved rights-of-way, or 'paper streets', are common in the community and provide opportunities for public views when they intersect or abut canyons or steep hillsides. Views from public vantage points (e.g. public streets, trails, parks) are intended to be protected.

Canyon trails allow for views as well as recreation.

'Paper' streets provide view opportunities and should be considered for trails.

Small parks at canyon interfaces can enhance view opportunities.

POLICIES

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CE-2.11 Retain and enhance public views from identified vantage points to and from community landmarks and scenic vistas as a public resource (refer to Urban Design Element Figure 4-1, Urban Design Concept Map).

CE-2.12 Select street trees for their ability to provide shade canopy and frame public views (refer to the Urban Design Element's Urban Forest and Street Trees section).

CE-2.13 Ensure unobstructed visual access that provides or preserves public views where streets and public right-of-way easements intersect or abut canyon landforms or designed open space. Landscaping may be provided at these locations but should be designed to frame, not screen or obstruct, public views.

CE-2.14 Evaluate the need for modified or increased setbacks when building adjacent to public view angles. Reject or object to reduced setbacks that obscure established public vantage points unless alternative or improved public views are proposed.

WATER RESOURCE MANAGEMENT

The amount of water on earth remains fairly constant over time. However, water is moved between different geographic locations and phases (e.g. rain, snow) known as the water cycle. In San Diego, the natural water cycle is dominated by moist air from the pacific that condenses as rain, fog or mountain snow and collects within the rivers and streams of local watersheds. Due to the pronounced dry season, rivers and streams often flow intermittently. Rainfall within local watersheds is also insufficient to effectively supply water to the region's population, therefore the primary water supply is from sources outside the region, largely from the Colorado River and watersheds in Northern California. The City's historically reliable water supply is credited to its ability to secure and import water from these sources. However, these sources face limitations especially in times of drought. The conveyance systems needed to provide this water also consume resources, particularly large amounts of energy.

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The City does not have direct control over its imported water supply, but is a member agency of the San Diego County Water Authority which is responsible for securing the region's imported water supply, largely from the Metropolitan Water District of Southern California in Los Angeles. The California Constitution also requires uses of the state's water be both reasonable and beneficial, and places a limitation on water rights by prohibiting waste and unreasonable use. However, the interpretation of what is wasteful can vary depending on circumstances such as drought conditions. Water conservation is therefore an important aspect of environmental sustainability.

POLICIES

CE-2.15 Encourage new development and building retrofits to incorporate as many water-wise practices as possible in their design and construction (refer to Urban Design Element).

Residences upstream from natural drainages can contribute to water quality improvement by reducing the amount of impervious driveway area.

Streets with wide parkways are candidates for stormwater infiltration using landscaped swales.

Community gardens provide locally sourced food as well as spaces for community-building and learning.

Low water use landscapes reduce water usage as well as energy costs.

A. Use of recycled and/or gray water landscape irrigation systems;

B. Retrofit public spaces and public rights-of-way with low-water use vegetation and/or alternative permeable surface materials that meet adopted landscape regulations; and

C. Ensure that any community greening' projects utilize water-efficient landscape design.

URBAN RUNOFF MANAGEMENT

Urban runoff is surface water runoff generated from developed or disturbed land associated with urbanization. The increase in impervious surfaces, and fewer opportunities for infiltration within the landscape increase the magnitude and duration of storm flows and provide a source for sediment and pollutants to enter the water source. Urban runoff is a major component of urban flooding and is a particular problem for management of watersheds. Urban runoff is the largest pollution source of Southern California's coastal beaches and near-shore waters. Urban runoff control programs typically focus on managing the effect that new impervious surfaces have on stream channels, but may also provide remediation of existing problems. The community is within the Pueblo San Diego Watershed which ultimately discharges into San Diego Bay.

POLICIES

CE-2.16 Incorporate sustainable site planning practices (Low Impact Development) that work with the natural hydrology of a site, including the design or retrofit of landscaped or impervious areas to better capture and use storm water runoff onsite (refer to Urban Design Element).

CE-2.17 Identify opportunities for additional hydromodification management measures to protect natural drainages from erosion and other problems. Give particular attention to the steeper canyon drainages receiving runoff directly from developed areas through storm drains or other conveyance systems.

CE-2.18 Require and maintain best management practices in all development to limit erosion and sedimentation.

8.3 Air Quality and Public Health

Air is shared by all members of a community and suitable air quality is important in fostering healthy living and working environments. Maintaining suitable air quality requires continual attentiveness to mitigate or eliminate unfavorable conditions. Poor air quality due to pollution causes harm to humans, animals, plant life, water quality and aesthetics (e.g. visibility). Poor air quality creates health problems particularly for groups with sensitivities such as children, the elderly, and persons with respiratory problems. Local air quality is affected most significantly by motor vehicles and other fossil-fuel burning vehicles, accounting for approximately 80 percent of air pollution emissions in the San Diego region. Freeways are a primary source of concentrated adverse health effects resulting from air pollution. These associations are diminished with distance from the pollution source.

Street trees provide multiple environmental benefits such as improving air quality, reducing heat gain, and reducing surface runoff. They also improve the pedestrian experience and provide an urban design statement. These Tipu trees on Fern Street have become a community landmark.

The General Plan Conservation Element addresses air quality in the San Diego Air Basin and includes policies designed to improve air quality on a citywide level. Location-specific conditions can lead to ongoing community-based recommendations for improvement.

POLICIES

CE-3.1 Implement a pattern of land uses and street designs that foster walking and biking as modes of travel.

CE-3.2 New development of any sensitive receptor land uses such as housing, schools and active use parks adjacent to freeways should provide a buffer within the area where health risks are known to be elevated, generally identified by the California Air Resources Board as within 500 feet of the nearest auto travel lane. Any buffer requirement should also consider established neighborhood land use patterns as these were in place prior to freeway construction and that their significant alteration could adversely affect neighborhood character and any revitalization efforts.

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A. Require an air quality analysis for development permits within 500 feet of the nearest auto travel lane of a freeway or highway;

B. Use site planning measures where feasible to locate sensitive receptor uses outside of the area where health risks are known to be unacceptably elevated;

C. When site planning measures are determined infeasible, incorporate mitigation measures as part of the building program such as individual dwelling ventilation systems, HEPA filters and inoperable windows facing the freeway.

CE-3.3 Encourage street tree and private tree planting programs as well as the retention of mature landscaping throughout the community to increase adsorption of carbon dioxide and pollutants.

Carbon emissions and air pollutants are reduced when transit is a more attractive travel option that results in less use of the private automobile.