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CHAPTER 5 Conservation and Open Space Element

5.1 Introduction

The Planning Area contains a broad range of natural resources and open space. The Conservation and Open Space Element establishes goals and priorities to guide conservation of biological, open space, scenic and water resources in the West San Gabriel Valley (WSGV). This element aligns with the Vision Statements found in Chapter 1, *Introduction*, of this plan and provides guidance for development to ensure its conformance with the natural environment, conservation of natural resources and open space, protection of sensitive watersheds and water quality, and preservation of scenic resources.

ORGANIZATION

Below is a summary of the types of biological, open space, scenic and water resources considered in this element. For an extended description of these resources and existing conditions, refer to

Environmental Resources + Climate Change Considerations Background Brief.

Following a summary of each resource type is a description of the primary issues and opportunities for conserving natural resources across the Planning Area (see Section 5.2, *Issues and Opportunities*), followed by the goals and policies which will guide conservation planning.

A. BIOLOGICAL RESOURCES

The WSGV Planning Area is biodiverse, with a variety of soils, geology, topography, elevation ranges, and microclimates that support a unique and varied collection of biological resources, including habitats and species not found elsewhere in the world. Los Angeles County is part of the California Floristic Province, which has been designated by Conservation International as one of the world's top 36 hotspots of biodiversity. While the WSGV contains large areas of open space and undeveloped land with identified biological resources, these areas have become threatened due to development and are further stressed by climate change impacts. The COS Element establishes goals and priorities to guide conservation of biological diversity in the WSGV. It also provides guidance for development to ensure conformance with the natural environment, conservation of biological resources, and protection of sensitive resources.

The Planning Area is defined historically, topographically, and ecologically by its natural features, including rivers, valleys, hillsides, and mountains. The San Gabriel Mountains, San Rafael Hills, and Whittier Narrows Recreation Area contain ridgelines, natural canyons, and drainage channels that provide habitat and connectivity corridors for wildlife, connecting preserved lands in Chino-Puente Hills to the southeast, the Verdugo and Santa Monica Mountains to the west, and the Angeles National Forest to the north. These areas contain significant ecological resources and allow for free-flowing drainage from the hillsides into canyons. The hillside areas also contain vast trail networks for hiking, biking, and equestrian uses.

The main types of biological resources located in the WSGV areas are hydrologic features, riparian habitats, woodlands, chaparral, coastal sage scrub, grasslands, special status species, USFWS-Designated Critical Habitat, Significant Ecological Areas (SEAs), and Regional Habitat Linkages. Further, the WSGV contains rare and endemic oaks

species whose genetic diversity should be preserved. The Planning Area is a rich storehouse of genetic diversity for oaks, particularly white oaks (section *Quercus*), which include Engelmann oak (*Quercus engelmannii*), San Gabriel oak (*Q. durata var. gabrielensis*), scrub oak (*Q. berberidifolia*), and hybrids of these species, plus a very small number of valley oaks (*Q. lobata*), which are probably planted, but which were present historically. Additionally, coast live oak, interior live oak, and canyon oak are also present. These resources are described in further detail in Appendix X, Environmental Resources + Climate Change Considerations Background Brief.

Designated Significant Ecological Areas (SEAs)

SEAs are locations designated by Los Angeles County that aim to protect valuable biological resources, including land that hosts sensitive and/or plentiful wildlife and vegetative species, intact habitat, and wildlife corridors to allow species to traverse the landscape.

Three SEAs are located within WSGVAP:

- 1. Altadena Foothills and Arroyos SEA
- 2. San Gabriel Canyon SEA
- 3. Puente Hills SEA

The SEA Program is described at the following links, https://planning.lacounty.gov/wp-general-plan-ch9.pdf and https://planning.lacounty.gov/long-range-planning/significant-ecological-areas-program/. The descriptions, biological resources, and specific features of the three SEAs designated in the Planning Area can be found here, https://planning.lacounty.gov/wp-content/uploads/2022/11/5.-qp_final-general-plan-appendix-E.pdf.

B. OPEN SPACE RESOURCES

Open space resources consist of largely undeveloped publicly and privately held lands and waters preserved in perpetuity for open space, recreational, conservation, and educational use. Open space resources in the WSGV consist of lands whose primary purpose is habitat preservation allowing for passive recreation as determined by the sensitivity of the resources present. Such lands include Los Angeles County (County)-owned parks and managed trails, public parks and trails owned and managed by joint-powers authorities,

national forest lands, and lands owned by nonprofit conservation organizations. Additionally, lands subject to recorded easements or deed restrictions for open space purposes may allow passive recreational use in line with the limitations established for the site by the terms of the applicable easement or deed restriction.

The WSGV area encompasses the foothills of the San Gabriel Mountains and parts of the Angeles National Forest, offering residents various recreational options. The County's Park system covers 3,540 acres in WSGV, 1,627 acres of which have been identified as conservation priority areas. For a comprehensive overview of the open space resources in the WSGV, refer to Appendix X, Environmental Resources + Climate Change Considerations Background Brief.

C. SCENIC RESOURCES

Scenic resources in the WSGV Planning Area encompass designated scenic highways and corridors, hillsides, scenic viewsheds, vistas, significant ridgelines, and other natural features. Physical characteristics and community perceptions, including views of parks, open spaces, and water bodies, define these resources. However, population shifts and development have led to the loss and degradation of some scenic features, highlighting the need for protection measures. The existing scenic views include the San Gabriel Mountains, San Gabriel River, Arroyo Seco, and Rio Hondo, contributing to the region's aesthetic and ecological value. Preserving these scenic resources is crucial for their beauty, the overall health of watersheds, and the well-being of communities. For a comprehensive overview of the scenic resources in the WSGV, refer to Appendix X, Environmental Resources + Climate Change Considerations Background Brief.

Scenic Resources in WSGV Communities

SCENIC RIVER CHANNELS

The San Gabriel River, Rio Hondo, and Arroyo Seco are integral scenic resources in WSGV, flowing from the San Gabriel Mountains south and through the valley. The Arroyo Seco runs along the westside of Altadena south to Pasadena, originating in the San Gabriel Mountains, flowing along the Gabrielino Trail, and south into Pasadena, flowing through a series of public parks. The San Gabriel River and Rio Hondo interact with Whittier Narrows, enhancing the

The Rio Hondo and San Gabriel River have both been part of a revitalization program called the Emerald Necklace. The goal of this program is to create a "necklace" of parks and reclaimed wild spaces with the two rivers.

Emerald Necklace Program

area's visual appeal and environmental richness. The San Gabriel River flows in a soft-bottomed channel between raised levees, while most of the Rio Hondo is concrete-lined to serve its primary flood control function, but in two places the river flows over open ground in the Peck Road Water Conservation Park and the Whittier Narrows Recreation Area.

SCFNIC HIGHWAYS

One scenic highway, Route 5/Route 134 in La Crescenta-Montrose, is eligible for designation as a California State Scenic Highway as determined by the State Scenic Highway System.

SCENIC PRESERVES

La Crescenta-Montrose Rosemont Preserve is a protected scenic area and lies within the unincorporated community of La Crescenta-Montrose. The Crescenta Valley, home to Rosemont Preserve, held historical significance as a Native American (Tongva Nation) site for thousands of years, specifically the Wiqanga village (Arroyos & Foothills Conservancy 2022). Saved from development by the Arroyos & Foothills Conservancy, this preserve now serves as a permanent wildlife sanctuary and community resource.

SCENIC PARKS AND RECREATIONAL AREAS

The Whittier Narrows Recreation Area and Whittier Narrows Park are scenic resources that provide water features, trails, and expansive green spaces. This park spans 1,500 acres and includes natural vegetation such as trees and grasslands, providing a habitat for various species. It is a popular birding spot for local and migratory species. The park provides scenic resources through walking trails, public art, and water features making it a popular area in WSGV.

Santa Fe Dam Recreational Area spans 836 acres and is located in Baldwin Park at the base of the San Gabriel Mountains. Along with the Angeles National Forest and Whittier Narrows Recreation Area, this recreational area has one of the highest rates of visitorship in the WSGV (PNA+ 2022). The area's centerpiece is a 70-acre lake offering year-round fishing, opportunities for non-motorized watercraft usage, and is a well-known birding area. Many native plant and animal species are also found in the recreation area.

SIGNIFICANT RIDGELINES

Ridgelines are elevated shapes formed by the meeting of sloping land surfaces. Specifically, significant ridgelines stand out due to their prominence, unique character and location, presence of cultural or historical landmarks, and ecological or scenic significance. Significant ridgelines have been identified and mapped in Altadena and are protected through the Community Standards District.

SCENIC HILLSIDES

The San Gabriel Mountains provide a dramatic scenic backdrop to the WSGV and are particularly close to the communities of Altadena and Kinneloa Mesa. Similarly, the Verdugo Mountains rise above La Crescenta-Montrose and create a strong visual presence. These hillsides, with their rugged peaks and slopes, contribute to the region's unique visual identity.

D. WATER RESOURCES

The San Gabriel Valley, once abundant in wetlands and riparian habitat, underwent significant changes due to the extractive economy of 19th- and 20th-century settlers. The booming population led to extensive water extraction, lowering the water table and disrupting the natural flow of the San Gabriel River and local waterways. Development and channelization of rivers resulted in the loss of 86 percent of historical wetlands, diminishing ecological benefits (County Planning 2023). Although the Angeles National Forest partially replenishes groundwater, the need for sustainable replenishment persists countywide. Groundwater basins contribute 13 percent of water supply annually to unincorporated areas, while over half is imported (LA County 2023b). Runoff in the northern WSGV supports riparian habitats, but development in the south reduces natural infiltration into groundwater basins, redirecting water to the channelized Los Angeles River and its tributaries on its way to the Pacific Ocean. A comprehensive background study was performed to analyze existing conditions in the Planning Area (refer to Appendix X, Environmental Resources + Climate Change Considerations Background Brief).

5.2 Issues and Opportunities

The Environmental Resources + Climate Change Considerations Background Brief (Appendix X), along with the outreach conducted on behalf of the County, identified numerous issues and opportunities for conserving natural resources across the Planning Area.

These issues (I) and opportunities (O) are summarized below by resource topic area and are broadly applicable across communities unless otherwise noted. The issue and opportunities are numbered and linked to the policies in Section 5.3.

A. BIOLOGICAL RESOURCES

Preservation of Biological Diversity

Development continues to be the main cause of species decline in the Southern California region, where approximately 20 percent of the species on the federally endangered species list are found. In Southern California, over 2,000 species of plants and animals are considered endangered, threatened, rare, sensitive, or have been placed on "watchlists" by government agencies and conservation groups. The County has designated SEAs for areas rich in biological resources to ensure the sustainability of these valued resources into the future. The SEAs feature large areas of relatively undisturbed habitat that are listed as highest priority communities for preservation by the California Department of Fish and Wildlife, due to their restricted distribution in the Southern California region. The SEA Program provides guidance for planning decisions and encourages the conservation of core habitats and linkages; however, despite protective programs, threats to biodiversity remain due to climate change and impacts from future development.

Habitat Fragmentation

Habitat loss and fragmentation are the leading threats to biodiversity, and roads and development are major causes of this fragmentation as they serve as obstacles to wildlife movement and often lead to collisions. A key consideration is to reduce the impacts and fragmentation caused by transportation barriers (South Coast Wildlands 2008). According to the California Roadkill Observation Program (CROS) database, most collisions are along State Route 2,

State Route 134, and I-210. Additional wildlife crossings at key locations are needed to facilitate movement to counter impacts from highways and urbanization. There is a need to reduce the impacts of transportation barriers and safely reconnect larger habitat areas to facilitate species movement and their genetic diversity for long-term sustainability of the populations.

Increased ranger and California Highway Patrol presence, as well as implementing traffic-calming strategies, can reduce incidences of speeding, which plays a role in the severity of wildlife-vehicle collisions. Additionally, buffer areas can be established around wildlife crossings that allow for compatible, low-intensity land uses to ensure safe passage and movement of wildlife.

Preservation of Wildlife Corridors

There is a need expand connectivity for wildlife movement to support the health of native species countywide. The WSGV provides a rich opportunity to further countywide goals for preservation of wildlife corridors, as rare plant communities, rare and endemic species of flora and fauna, and documented wildlife movement corridors exist in the Planning Area. Major wildlife corridors include the Arroyo Seco and San Gabriel River, which overlap with the unincorporated communities of La Crescenta-Montrose, Altadena, Kinneloa Mesa, and Whittier Narrows, extending into adjacent jurisdictions Large areas of privately owned, undeveloped lands exist throughout the region and function as continuous wildlife habitat when not fenced. These lands should be reviewed for potential acquisition, with strategies developed toward maximum preservation of biological diversity and habitat connectivity.

Wildland/Urban Interface

To reduce environmental impacts from development and limit human exposure to hazards including wildfire, landslides, erosion, and floods, it is necessary to minimize and prevent the expansion of wildland/urban interface areas along the foothills of the San Gabriel Mountains. Maintaining vegetated hillsides helps retain and absorb moisture and helps reduce the occurrence of extreme erosion and landslides after fire and rain events. In Fire Hazard Severity Zones, the fuel modification requirements can extend negative impacts of development into native vegetation, well beyond the footprint of development.

Climate Change Vulnerability

Climate change generates more extreme and unpredictable weather events that will likely harm the survival of wildlife and vegetation species. Species often time their behavior (e.g., flowering of plants, hibernation of animals) according to regular, predictable seasonal and environmental cues—which become less reliable due to climate change. As a result, many species will often find it difficult to properly time appropriate behaviors due to these erratic events.

Climate change also increases the severity and prevalence of natural disasters such as wildfires, flooding, mudslides, and extreme heat, which are all intertwined. For example, severe drought followed by intense rainfall can lead to mudslides. The foothills of the San Gabriel Mountains are especially prone to these disasters due to their susceptibility to wildfire and accumulation of water after rainfall. Thus, it is important to assess the risk of WSGV communities, especially in underserved communities, to natural disasters exacerbated by climate change, and develop mitigation strategies to protect biodiversity.

Multi-jurisdiction Collaboration on Habitat Protection and Linkages

As SEAs and habitat areas cross jurisdictional boundaries, it's imperative for jurisdictions to work together to conserve and protect habitat areas and wildlife linkages. The SEAs as mapped flow into other jurisdictions where SEAs are not enforceable by the County. Working with other jurisdictions to create and enforce protection across jurisdictional boundaries would help to preserve and prevent fragmentation of the remaining habitat areas and wildlife linkages. This need is especially heightened as climate change may shift and alter the remaining habitat areas, necessitating the continuity of wildlife linkages across jurisdictional boundaries.

B. OPEN SPACE RESOURCES

Limited Available Open Space and Conflicting Priorities

A significant challenge in WSGV is the conflict between growth demands and the need to preserve remaining open spaces and resource-sensitive lands as a valuable community resource. The available land must satisfy diverse and often conflicting community priorities, creating a complex issue. The challenge of limited space can

prompt innovative land use solutions, optimizing available space for both the built environment and open space and conservation demands.

Equitable and Inclusive Access to Open Space and Trails

Promoting accessibility and inclusivity in large open spaces is an essential goal, addressing diverse recreational needs and striving for equitable distribution of greenspace. The challenges emerge in tackling issues such as limited transit options, ensuring preservation of biotic resources while designing for public access, and managing conflicting needs among different user groups, such as equestrians, hikers, and mountain bikers along trails. Engaging the public can resolve conflicts between user groups and enhance the overall experience in large open spaces. Existing spaces can also be designed to achieve multiple beneficial uses such as integrating green infrastructure for stormwater retention and connecting large open spaces for safe wildlife passages.

For additional discussion on open space and park lands refer to Chapter 6, *Public Services and Facilities*.

Open Space Management Plan for Acquisition and Planning

The County does not have an adopted countywide master plan for prioritizing land acquisition or managing and preserving resource-sensitive lands and open space areas. As habitat becomes increasingly fragmented, the region will require a planning document that focuses conservation efforts by outlining criteria for preserving and acquiring land, setting standards for identifying priority acquisitions for wildlife connectivity, establishing conservation and land management goals, and identifying funding sources. This effort would be strengthened by collaboration with other agencies and jurisdictions to leverage resources and further the impact.

C. SCENIC RESOURCES

Scenic Routes and Corridors Study

The absence of a scenic routes and corridors study in the WSGV, and overall County, is a significant gap. Conducting a thorough study is an opportunity to identify and preserve unique scenic and cultural resources effectively. Engaging experts, community leaders, and cultural heritage specialists in the study can provide valuable insights

into understanding and preserving the region's scenic and cultural resources.

Balancing Development and Preservation

Balancing development and growth with the preservation of scenic resources is a challenging task. Pollution and erosion are growing concerns in preserving the environmental and scenic value of the resources in the WSGV, especially the San Gabriel River and Rio Hondo. Addressing this challenge might involve implementing land use regulations, tackling light pollution concerns, and devising strategies to mitigate the impact of development on the aesthetic appeal of natural areas.

D. WATER RESOURCES

Watershed Impacts and Land Use

Poorly designed land uses within a watershed can harm rivers, streams, and communities through urbanization-induced issues like impervious surfaces, channelization, wetland loss, and polluted runoff. To safeguard water resources, a watershed-based planning approach, integrated with site-level land use planning, is essential. This involves implementing multi-benefit projects that replicate natural hydrologic cycles to protect, conserve, and restore water resources, when and where feasible.

Surface Water Impairments

Clean Water Act Section 303(d) requires states to identify and establish a list of water bodies that do not meet applicable water quality standards. Those water bodies are considered "impaired" and are placed on the Clean Water Act Section 303(d) list. More than a dozen different stormwater and wastewater pollutants—including metals, nutrients, indicator bacteria, organics, pesticides, trash, and other contaminants—are found in the county's water bodies in amounts significantly above established water quality standards. In the WSGV, the listed water bodies include Alhambra Wash, Legg Lake, Peck Road Park Lake, Puddingstone Reservoir, Puente Creek, Sawpit Creek, San Antonio Creek, Santa Fe Dam Park Lake, San Jose Creek, Walnut Creek Wash and a portion of the Arroyo Seco, San Gabriel River, and Rio Hondo. The Los Angeles River is also an impaired water body with multiple pollutant concentrations above federal standards. Most of

these water bodies are located on the eastern and western sides of the WSGV around the communities of South Monrovia Islands and Whittier Narrows (see **Figure X**). Planning efforts should incorporate measures to meet water quality requirements at every geographic level, such as on efforts ranging from parcel-level projects to regional scale area planning to protect public and environmental health in coordination with Watershed Management Program (WMP) and Enhanced WMP Groups.

Groundwater Impairment and Depletion

In urbanized areas, compacted soils and impervious surfaces impact the natural recharge process. In the foothills of the San Gabriel Mountains, downhill flow of snowmelt and rainwater recharge the groundwater recharge areas. With climate change and decreasing snowpack and rainfall, the recharge capacity of these areas becomes limited. In the foothill communities of the WSGV, implementing policies aimed at reducing impervious surfaces and increasing green building design, landscaping and bioswales, and other measures will help improve groundwater recharge.

Dry weather and wet weather flows in the Los Angeles River present opportunities to develop and diversify local water resources to reduce dependence on imported water and increase the reliability and resiliency of the region's water supply. Any planning measures should incorporate efforts to capture and treat stormwater and dry weather flows, especially in areas and communities that are less developed where chances for runoff pollution are also less. These planning measures should focus on improvements to groundwater impairment and depletion and reductions in peak flood flows into the river. Effective infiltration or storing of runoff should be emphasized to not exceed the downstream channel capacity and allow groundwater recharge facilities to effectively direct stormwater to local and regional spreading grounds. This is where the water can percolate into the groundwater basins for later use.

5.3 Goals, Policies, and Actions

The General Plan sets the policy direction for all the unincorporated communities in LA County. In addition to General Plan goals, policies, and implementation programs the following goals, policies, and programs are applicable to the natural resources in the WSGV Planning Area. Where this Area Plan is silent on policy matters, the General Plan policies still apply.

A. BIOLOGICAL RESOURCES

Goal COS-1: In the face of escalating threats from climate change, biodiversity and ecological health are preserved and restored, ensuring their vitality and sustainability for the enjoyment and benefit of all beings.

Policy COS-1.1: Strengthen ecosystem preservation for biodiversity. Focus on the long-term preservation of biodiversity in WSGV by ensuring the protection of biological resources through strategic habitat preservation efforts, including actions aimed at identifying and conserving areas of high biological significance and sensitive natural communities and protecting SEA-designated land.

- Action: In partnership with non-profits and other entities (e.g., California Native Plant Society, universities, etc.), conduct ecological, genetic, and field studies to assess the biological and ecological health of the WSGV. Use these field studies to identify and map areas with highest biological interest (e.g., presence of special status species, sensitive natural community, known wildlife corridor, etc.) and with sensitive natural communities (e.g., coastal sage scrub, alluvial fans, etc.), to prioritize conservation efforts. Conduct repeated studies to determine changes over time.
- Action: After identifying areas of highest biological and ecological interest, develop an open space acquisition strategy to focus on preserving these areas, which would include collaborations with other jurisdictions, non-profit organizations, and developers to identify properties that may be on the market soon, to increase likelihood of acquirement. Focus on placing priority mitigation sites under conservation easement for perpetuity to prevent future development.

Policy COS-1.2. Protect habitat areas and wildlife linkages through a Habitat Conservation Strategy. Establish internal-County coordination and inter-agency coordination with other adjacent jurisdictions to conserve and protect habitat areas and wildlife linkages in SEAs, taking special consideration into studying the connection to the Verdugo Mountains and waterways (e.g., streams, washes, etc.). This can be done through a coordinated regional Habitat Conservation Strategy that includes baseline data, policies, regulatory standards, best practices, mitigation measures and regular monitoring protocols. Apply the Habitat Conservation Strategy to other areas of high biological significance.

Action: Identify relevant internal agencies to participate in developing regional Habitat Conservation Strategy that includes baseline data, policies, regulatory standards (e.g., buffering, mitigation measures, restoration and maintenance criteria, etc.), native plant lists, phenologically sensitive species, best practices for increasing ecosystem resiliency to climate change, and monitoring protocols, to ensure that biodiversity is consistently protected and restored throughout the WSGV. Monitoring protocols should include periodic assessments/surveys and recommendations to ensure continued success of restored habitats until habitat is considered fully restored by a restoration biologist (i.e., meets restoration success criteria in habitat conservation strategy). (For examples, refer to Natural Community Conservation Plans [NCCPs] and Habitat Conservation Plans [HCPs]). See Western Riverside Multiple Species Habitat Conservation Plan: https://rctlma.org/western-riverside-county-multiple-specieshabitat-conservation-plan-mshcp-1).

Policy COS-1.3: Engage and educate the community in preserving biodiversity, restoring habitats, and combatting climate change. Foster community awareness, education and stewardship around biological conservation, restoration and climate adaptation by collaborating with non-governmental organizations and other agencies to conduct events and workshops (e.g., trash removal, native vegetation planting, adapting landscapes, etc.).

 Action: Identify non-governmental organizations and other agencies to collaborate with to create and host community outreach events and educational campaigns. Events may include removing trash along streambeds, rivers and streets; and planting native vegetation. Educational campaigns may focus on the presence and importance of nearby species, environmental stewardship, and adapting landscapes to restore biodiversity and increase resilience to climate change.

Policy COS-1.4: Promote healthy streambeds and rivers.

Support healthy streams, rivers, and their associated riparian ecosystems by dechannelizing concrete rivers and streambeds and restoring natural riparian vegetation to promote wildlife usage, where and when feasible. Prioritize restoration efforts in areas that are near or adjacent to large tracts of habitat.

Policy COS-1.5: Conserve genetic diversity of oaks in WSGV.

Preserve the genetic diversity of the various oak species of the WSGV, including Engelmann oak (*Quercus engelmannii*), San Gabriel oak (*Q. durata var. gabrielensis*), scrub oak (*Q. berberidifolia*), valley oak (*Q. lobata*), and the hybrids of these species.

 Action: Develop regulatory standards that protect the diverse oak species in the WSGV and require that developments plant only locally native oak species. **Goal COS-2:** A connected network of large tracts of habitat with a robust system of wildlife linkages and corridors to conserve and protect biodiversity.

Policy COS-2.1: Increase wildlife safety and minimize collisions. Minimize wildlife-vehicular collisions and potential conflict in the urban-wildlife interface by concentrating development towards urban centers and away from natural spaces; and by directing development away from SEAs, USFWS Critical Habitat areas, and wildlife corridors.

Policy COS-2.2: Foster safe wildlife crossings. Support the development of safe wildlife crossings and connecting of fragmented habitat through a Wildlife Protection and Corridor Implementation Program that would involve identifying locations for wildlife crossings and protecting wildlife in situations where safe crossings are not feasible to build.

Action: Develop a Wildlife Protection and Corridor Implementation Program by utilizing online databases such as South Coast Missing Linkages, California Roadkill Observation System (CROS), etc. to identify monitoring locations and locations to be considered for wildlife crossing development, conducting wildlife camera studies in the monitoring locations to determine areas of highest conservation concern (e.g., use by sensitive species and/or most frequent use), and building wildlife crossings and underpasses for wildlife overtime, as feasible. As part of this program, establish guidelines for wildlife crossings (e.g., width, connectivity, and vegetation types) and develop a framework for mitigating human-wildlife conflict in areas where wildlife corridors cannot be constructed. such as by reducing vehicle speed limits and installing fencing at dangerous locations to deter wildlife crossings. Mitigation, for example, could include requiring that road and floodplain improvements and construction require the review and recommendation of a qualified biologist to incorporate all feasible measures to accommodate wildlife passage. Consider also adding these strategies regarding wildlife connectivity into a HCP/NCCP (as outlined in Policy COS-1.2).

GOAL COS-3: Urban spaces are enhanced for biodiversity, wildlife and human protection, and climate resiliency.

Policy COS-3.1: Direct Development Away from High Fire Hazard Zones. Direct development away from the foothills and areas identified as High and Very High Fire Hazard Severity Zones, aiming to safeguard both human and wildlife habitats.

Policy COS-3.2: Increase native vegetation across urban areas of WSGV. Revegetate urban spaces with locally native plant species to foster biodiversity and decrease heat-island effects, especially as climate change increases these threats. Focus on revegetating degraded and previously disturbed areas to develop more open spaces in urban centers.

Action: Develop an approved list of locally native plant species.

Policy COS-3.3 Increase native vegetation on County-owned parcels. Require the use of locally native vegetation in County-owned parcels and projects, as feasible (e.g., community parks, government buildings, etc.).

Policy COS-3.4 Plant all slopes and disturbed areas with locally native vegetation. Require all cut and fill slopes and other disturbed areas to be landscaped and revegetated with locally native plant species that blend with existing natural vegetation and natural habitats of the surrounding area prior to the beginning of the rainy season.

Policy COS-3.5: Preserve vegetative hillsides for erosion control. Implement conservation practices to maintain vegetative hillsides, mitigating erosion and reducing the risk of land/mudslides, particularly following wildfires, thereby enhancing climate change resilience.

Policy COS-3.6: Decrease human-wildlife conflict in urban spaces. Develop and implement strategies to mitigate conflicts between humans and wildlife in urban areas to reduce incidents that negatively impact both wildlife and human residents.

 Action: Develop standards to require bird-friendly glass or decals on the outdoor face of glass to reduce bird collisions for both residential and commercial buildings. Prioritize the usage of this material in high-rises and other buildings more prone to bird strikes.

Policy COS-3.7: Limit light pollution and disturbance to wildlife species. Limit or restrict lighting towards natural areas at night to limit light pollution and disturbance to wildlife species by encouraging implementation of the County's Rural Outdoor Lighting District Ordinance (ROLD) practices outside of mandated areas, and by requiring the installation of timers to automatically shut lights during "dark hours" in the middle of the night.

 Action: Conduct a light pollution study to identify areas with the highest light pollution and compare with the results of a biological study to prioritize mitigation efforts in areas with lightsensitive wildlife.

Policy COS-3.8: Encourage native plants at commercial nurseries. Encourage nursery operators in WSGV to propagate and supply locally native plants to limit impacts of non-native species on biological resources.

B. OPEN SPACE RESOURCES

Goal COS-4: Open spaces meet multiple needs and are expanded through acquiring land that protects biologically sensitive resources, supports resourcesensitive lands and provides community access to recreation as appropriate.

Policy COS-4.1: Support the acquisition of resource-sensitive lands for permanent open space. Support acquisition of land for open space preservation and passive recreational use, as appropriate. Prioritize acquiring land in SEAs and other resource-sensitive lands (e.g., lands that protect biodiversity, biologically sensitive resources, water resources, water quality, wildlife corridors, and biological resources).

Policy COS-4.2: Provide multi-benefit open spaces. Ensure the creation and enhancement of open space and recreational areas across the WSGV that deliver multiple environmental and community benefits. These spaces should integrate water quality improvements, support groundwater recharge, provide native habitat restoration, enable habitat connectivity, enhance biodiversity, and offer means of equitable access.

Goal COS-5: Sustainable practices and designs are an integral part of all open spaces, increasing the community's resilience to climate change impacts.

Policy COS-5.1: Minimize habitat fragmentation in open space design. Design open spaces, including trails and public access recreation areas, to minimize habitat fragmentation while optimizing available space for the passive recreation.

Policy COS-5.2: Conduct environmental monitoring and research. Establish a comprehensive environmental monitoring and research initiative, in partnership with local educational institutions, to systematically assess the climate impacts on WSGV's large open spaces, resource-sensitive lands, and park ecosystems. This includes ongoing data collection on key environmental indicators (e.g., temperature fluctuations, extreme weather events, changing precipitation patterns, water quality, and shifts in local ecosystems), with a strategic focus on areas with the highest environmental burden as identified by the PNA+ assessments.

Goal COS-6: Large open spaces, recreation areas and trails are enhanced and maintained to ensure habitat protection and a safe and pleasurable experience for the community.

Policy COS-6.1: Prioritize the protection of biological resources over recreational needs in sensitive areas. In biologically sensitive areas, designate and manage large open spaces and connecting trails such that the protection of biological resources and sensitive habitats takes precedence over recreational access.

Policy COS-6.2: Initiate conservation and open space volunteer programs. Collaborate with local community-based organizations, agencies, and local schools to promote community and youth involvement in trail maintenance, habitat restoration, and educational activities.

A scenic resource is a singular element within the environment valued for its visual appeal (mountains, rivers, historical buildings) while a scenic area is a larger, defined geographical area that encompasses multiple scenic resources and is preserved and designated for its overall scenic beauty (including national parks, protected natural reserves, designated heritage sites, or even specific viewpoints along highways).

Scenic Areas vs Scenic Resources

C. SCENIC RESOURCES

Goal COS-7: Scenic resources are preserved for the enjoyment of the public and to maintain the natural beauty of the area.

Policy COS-7.1: Identify and preserve scenic resources. Direct the identification, designation and preservation of scenic resources and routes within the WSGV Area Plan through a participatory process. This initiative shall encompass the execution of detailed scenic resource inventories and the development of a comprehensive Scenic Resources and Routes study, integrating extensive community input gathered through workshops and public forums with residents, environmental organizations, and cultural experts, involving community input and detailed inventories.

 Action: Implement a Scenic Resources Preservation Initiative, beginning with the execution of a detailed inventory and study of scenic resources. Actively involve the community through workshops and forums to ensure a broad representation of community-valued scenic assets.

Policy COS-7.2: Safeguard scenic resources in development. Implement measures to protect scenic resources from the impact of new development, including zoning regulations and collaboration with landowners for conservation efforts. Offer incentives such as tax breaks or grants to developers and/or landowners who incorporate scenic preservation measures into their projects, such as preserving natural features, creating public viewpoints, or restoring degraded landscapes.

 Action: Create and implement zoning regulations that specifically identify and protect areas with significant scenic value by creating restrictions on the height and types of buildings that can be constructed to maintain the visual integrity of the landscape.

Policy COS-7.3: Protect scenic views and natural habitats.

Collaborate with landowners and developers to set aside portions of their land as conservation easements to limit future development on the designated land, ensuring the protection of scenic views and natural habitats.

Policy COS-7.4: Expand and preserve scenic areas. Collaborate with conservation organizations, trusts, and agencies on acquiring lands through purchase or conservation easements. Explore and pursue strategic land acquisition opportunities to extend protected areas around identified scenic resources, prioritizing natural buffers and conservation easements.

 Action: Conduct a comprehensive assessment of available lands surrounding identified scenic resources and prioritize lands that serve as natural buffers to scenic areas.

Policy COS-7.5: Facilitate transition to Designated Scenic Resources. Support the process of transitioning eligible scenic resources into officially designated scenic areas through planning and zoning amendments.

Action: Initiate a Scenic Resource Designation Program that
includes the development of detailed enhancement plans for
eligible scenic resources and the formulation of corresponding
zoning amendments. This program will ensure the systematic
protection and official recognition of these areas as designated
scenic resources, aligning planning efforts with conservation
goals.

Policy COS-7.6: Promote awareness and accessibility of scenic resources. Implement public awareness campaigns that promote environmental well-being of scenic resources, such as the San Gabriel River, Rio Hondo, and Arroyo Seco, and educate the community on the importance of preserving the scenic resources in the WSGV.

D. WATER RESOURCES

Goal COS-8: Watersheds are preserved and protected from the impacts of development, recreation, and agricultural uses, ensuring their ecological integrity and function for future generations.

Policy COS-8.1: Implement green infrastructure for water management. Evaluate opportunities to incorporate green infrastructure best management practices into planning efforts and projects, including infrastructure strategies such as permeable pavements, rain gardens and bioswales with locally native plants, green roofs, and other strategies, to absorb and slow down stormwater and filter pollutants from runoff.

Policy COS-8.2: Prioritize regional and inter-agency watershed health management. Coordinate local management of watershed health at a regional or multi-agency level. Emphasize a watershed-based planning approach that aligns with existing water plans, watershed management programs, integrated monitoring programs, regional Water Quality Control Plans (Basin Plans) and river corridor master plans.

Action: Initiate a Regional Watershed Health Alliance
comprising various agencies across Los Angeles County to
foster active engagement in Enhanced Watershed
Management Programs, coordinate stormwater and
groundwater management efforts for decentralized infiltration,
and secure funding for the implementation of comprehensive
Watershed Management Plans. This alliance will also oversee
the integration of Coordinated Integrated Monitoring Programs
and other TMDL implementation strategies to ensure a unified
approach to watershed health.

Policy COS-8.3: Design infrastructure for watershed protection. Ensure that all development projects incorporate natural infrastructure to protect and enhance the absorption, purification, and retention functions of natural drainage systems. This policy requires development designs to align with existing hydrological patterns, restore disturbed or degraded natural drainage systems where feasible, and incorporate sufficient buffer zones around sensitive water resources and habitats to preserve biological integrity and minimize development impacts.

Action: Designate and map sensitive watershed areas to
establish minimum buffers from sensitive water resources.
Perform analyses to determine appropriate buffer widths of a
sufficient size to ensure the biological integrity and preservation
of the riparian habitat. Require natural vegetation buffer areas
that protect riparian habitats to be maintained. Buffers function
as transitional habitat and provide a separation from developed
areas to minimize adverse impacts. Utilize a buffer distance
from areas closest to existing protected habitat areas,
tributaries or confluences (within at least 1,000 feet) that could
help further buffer core protected habitat areas, including areas
listed on California's Protected Areas Database.

Policy COS-8.4: Prevent development in wildland/urban interface areas. Direct development away from wildland/urban interface areas with the Angeles National Forest and San Gabriel Mountains near the communities of Altadena and Kinneloa Mesa where the maintenance or enhancement of habitat could contribute to natural water infiltration...

Policy COS-8.5: Prevent soil and water contamination. Promote best practices that ensure clean and safe surface water, groundwater, and soil. Best practices include reducing stormwater pollution through vehicle maintenance, lawn care, and pet waste management. Prevent point and non-point source water pollution and the disposal of animal waste, wastewater, and any other byproducts of human, crop-based agricultural or equestrian activities in or near any drainage course.

Policy COS-8.6: Prohibit alteration of streams for stream crossings. Protect existing stream resources through prohibition from alteration or modifications that could affect water quality or watershed health and require review of California Department of Fish and Wildlife Lake and Streambed Alteration Program for any

potential stream alteration projects or planning considerations. Set a minimum distance for bridge columns to be located outside streambeds and banks. Wherever possible, shared bridges shall be used. Culverts may be utilized for the crossing of minor drainages lacking beds and banks and riparian vegetation.

Goal COS-9: Local waterways are developed and maintained to mimic the hydrologic cycle, provide ecosystem services, and support both locally native and migratory species.

Policy COS-9.1: Prioritize design of multi-benefit spaces for water quality improvements. Provide multi-benefit spaces incorporating environmental services with water quality improvements or pollution prevention programs. These should include slowing and capturing water for groundwater recharge, installing bioswales, using locally native vegetation, and creating habitats for birds and pollinators. Also, ensure public access where feasible. Focus on integrating design elements that concurrently yield environmental benefits, ensuring direct improvements in water quality.

Policy COS-9.2: Naturalized Water Channels. Prioritize the use of bioengineering alternatives over traditional "hard" solutions such as concrete or riprap for flood protection, where feasible. Favor naturalistic, ecologically sensitive approaches that align with stream preservation and ecological integrity.

Goal COS-10: Streams, wetlands, natural drainage channels, riparian habitat, and other natural intermittent and perennial waterbodies are protected, preserved, and restored.

Policy COS-10.1: Restore and protect riparian habitats along local waterways. Preserve, restore, and strategically acquire available land for open space to preserve and protect watershed uplands, natural streams, drainage paths, wetlands, riparian habitats, and rivers, which are necessary for the healthy function of watersheds.

- Action: Develop a program to offer incentives to landowners to restore any property with adjacent riparian habitat and to implement residential and commercial/small business water conservation and stormwater retrofits, focusing on those that employ a multi-benefit, watershed approach.
- Action: Leverage existing habitat mapping and analyses from the LA County Water Plan to identify areas where there is a need to restore riparian and upland habitat along creek channels. This will aid in facilitating plant and wildlife movement and improving water quality. Prioritize areas adjacent to or along the washes, drainage channels, and creeks, particularly unchannelized portions of creeks, and in wildland/urban interface areas with space for habitat improvement. In addition, aim to restore riparian and upland habitats wherever possible, especially when upgrading concrete-banked streams and channels.

Policy COS-10.2: Restore riparian resources. Aim to restore upland communities, primarily in central WSGV, and significant riparian resources, such as degraded streams, rivers, and wetlands. Focus on maintaining ecological function and employ incremental restoration strategies when complete restoration is not feasible. Focus restoration efforts where they provide the greatest ecological benefit, potentially connecting to existing riparian habitats, thereby enhancing ecological continuity and health.

 Action: Conduct thorough inventories and assessments of existing riparian resource conditions and their ecological connectivity. Develop a systematic approach to prioritize the restoration of critical riparian areas where feasible. Policy COS-10.3: Prioritize mechanisms for water resource protection. Enhance water resource protection mechanisms, such as a stream protection ordinance and buffer zones, especially in natural areas and SEAs. This includes unchannelized water resource areas like Whittier Narrows and the San Gabriel River, as well as wildland/urban interface areas, to protect, preserve and restore natural buffers around waterbodies.

Policy COS-10.4: Limit stream alterations. Restrict the channelization or other significant alterations of streams, except under specific conditions: (1) necessary water supply projects where no feasible alternative exists; (2) flood protection for existing development where no other feasible alternative exists, as approved by the Director of Public Works or Chief Engineer of the Los Angeles County Flood Control Districts or assigned designee; or (3) the improvement of fish and wildlife habitat. Ensure that any permitted alterations minimize groundwater depletion and include comprehensive mitigation measures.

Goal COS-11: Surface and ground water resources are protected and maintained at a high quality.

Policy COS-11.1: Sustainable management of groundwater resources. Protect natural groundwater recharge areas in northeast WSGV and regional spreading grounds in the southern portion of WSGV.

