

WELCOME TO THE

# WILDLIFE

PILOT STUDY WORKSHOP



**LOS ANGELES  
CITY PLANNING**  
Citywide Policy

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[Planning4LA.lacity.org/plans-policies/initiatives-policies/sustainability](https://planning4LA.lacity.org/plans-policies/initiatives-policies/sustainability)

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# INTRODUCTION

## WILDLIFE IN LOS ANGELES

# STATION 1

## WILDLIFE PILOT STUDY



## Did you know that Los Angeles is home to a variety of wildlife ranging from insects and reptiles to mammals?

Hillsides like those in the Wildlife Pilot Study are especially rich with important plants and animals! Biologists from the National Parks Service (NPS) are researching wildlife occurrences in the city and surrounding area to better understand the nature around us. (See the accompanying map).

"Community science" or "citizen science" is research and observations collected by the public (people like you!) and is also helping to increase the understanding of the diversity and range of wildlife living in our backyards. Download the iNaturalist App so you can record what you see and learn about what others have observed in Los Angeles.

### Animals:

- California quail
- Great horned owl
- Hooded oriole
- Lorquin's Admiral
- Mule deer
- Gray fox
- Bobcat
- Coyote
- Mountain lion
- Virginia opossum

### Plants:

- California sycamore
- California buckwheat
- Coast live oak
- Toyon
- Black sage
- Lemonade berry
- Bush sunflower
- Coyote brush

List birds, insects and/or animals you have sighted in your neighborhood:



Los Angeles City Habitat Blocks, Figure X - Wildlife Observed  
Source: NAIP, 2016 (Aerial); County of Los Angeles, UC Davis Road Ecology Center; iNaturalist.org

Mountain Lion, NPS  
<https://www.nps.gov/monarch/species/nature/puma.htm>  
Coyote, NPS  
<https://www.nps.gov/monarch/species/nature/coyote.htm>

Virginia Opossum, Greg Schechter  
<https://www.nps.gov/monarch/species/nature/opossum.htm>  
Mule Deer, NPS / Neal Herbert  
<https://www.nps.gov/monarch/species/nature/muledeer.htm>

Striped Skunk, Bryan Padron  
<https://www.nps.gov/monarch/species/nature/skunk.htm>  
Bobcat, Linda Tanner  
<https://www.nps.gov/monarch/species/nature/bobcat.htm>

Grey Fox, Leonora Enking  
<https://www.nps.gov/monarch/species/nature/grayfox.htm>



The Pilot Study Area is not only a critical area for preserving habitats and connectivity, it is also an area susceptible to fire, flooding and landslide hazards. Improving safety for humans and wildlife is a mutually supportable goal and addresses the sustainability and resiliency of the hillsides as well as extends ecological benefits to the entire watershed. Maintaining and improving the quality of the hillsides for their habitat value ensures we support the unique biodiversity of the region. The Pilot Study recognizes a holistic approach to considering regulations for wildlife that could address these interrelated goals.



### Interrelated Goals:

- Providing critical connectivity for wildlife
- Providing space between structures for habitat retention and fire safety
- Preserving ridgelines, riparian, wetlands, and water resources
- Limiting impervious surfaces and preserving ecological value on sites
- Limiting removal of trees and habitats
- Reducing excess grading and protecting slope stability
- Addressing fire safety through promoting native, drought-tolerant, non-invasive, climate-adaptive, and fire-resistant landscaping
- Improving watershed health and water quality

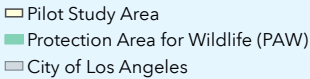
**Habitat  
Preservation**

**Wildlife  
Connectivity**

**Biodiversity**

**Climate  
Resiliency**

**Fire Safety**



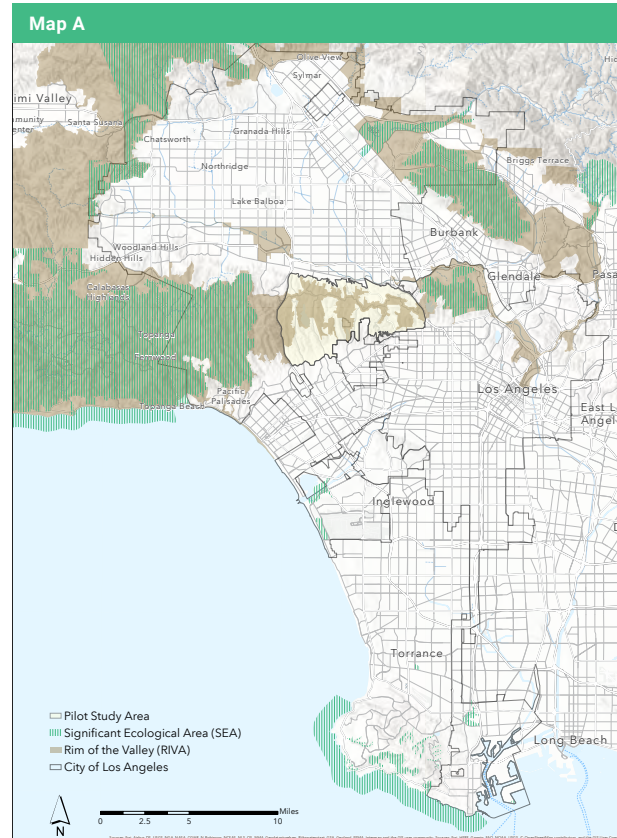
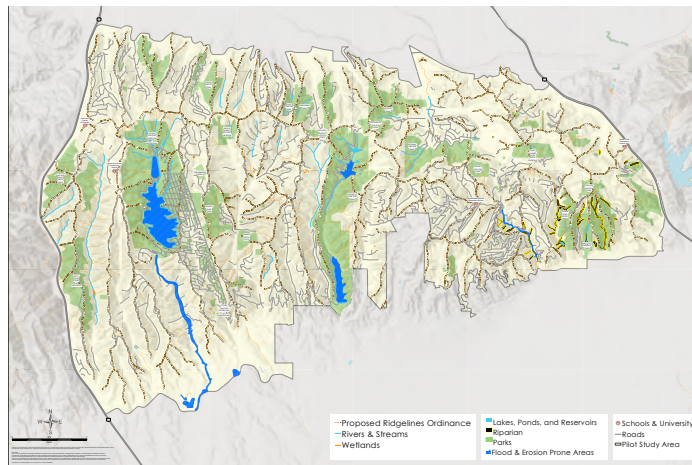


# INTRODUCTION

## RESOURCE CONNECTIVITY AND REGIONAL SETTING

The Pilot Study area is an important wildlife connection within the regions' larger environmental setting. This area serves as an important linkage for habitats connecting the County's **SEAs (Significant Ecological Areas)** and the **RIVA (Rim of the Valley Corridor Preservation Act)** boundaries and helps reduce further habitat fragmentation. These areas are rich in biological resources and their location within the **VHFSZ (Very High Fire Hazard Severity Zone)** make them a pertinent place for sustainable vegetation management and resource conservation.

*Connecting all the high habitat value resources provides opportunities for wildlife mobility.*



### Significant Ecological Areas (SEAs)

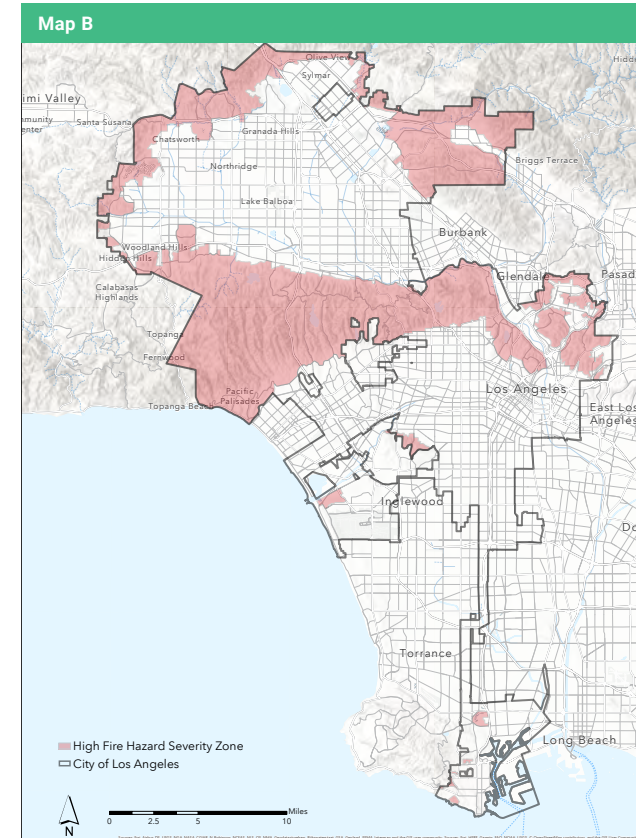
**SEAs** are officially designated areas within Los Angeles County identified as having irreplaceable biological resources. These areas represent the wide-ranging biodiversity of the region and contain some of the region's most important biological resources. (See Map A)

### Rim of the Valley Corridor Preservation Act (RIVA)

Congress passed a bill (2008) that enabled the National Park Service (NPS) to designate land within the Rim of the Valley Corridor (see Map A) as part of the existing Santa Monica Mountains National Recreation Area (SMMNRA). This bill authorized NPS to implement capital improvements such as trails, roads and other facilities as well as monitor and study wildlife and ecosystems to preserve the Corridor for wildlife connectivity.

# STATION 1

## WILDLIFE PILOT STUDY



### Very High Fire Hazard Severity Zone (VHFSZ)

**VHFSZ** was first established in the City of Los Angeles in 1999 and replaced the older "Mountain Fire District" and "Buffer Zone." The "Zone" was carefully determined according to California State Law and identifies areas in the city most at risk for fire hazards. (See Map B)



### Study Area

- Located in the Santa Monica Mountains between the 405 and 101 freeways
- Pilot area will serve to test potential regulations that could be adapted for future Protection Areas for Wildlife (PAWs)
- The Pilot Area contains a mix of primarily low density residential lots with large undeveloped public open spaces. The area is zoned for varying types of single-family residential uses, ranging from smaller suburban residential lots to larger residential estates and rural agricultural lots.





### Council Motion Objectives

- Protect remaining open spaces and wildlife habitat
- Increase wildlife movement mobility
- Prevent further injuries and deaths of wildlife
- Designate an area as sensitive habitat
- Incorporate conservation, equity, and biodiversity

### The Sustainability pLAN

- Protect LA's natural resources and thriving wildlife
- Healthy urban ecosystems
- Preparedness and resiliency
- Protect and support biodiversity

### Resiliency + Public Safety

- Fire, erosion, flooding, safety evacuations

### Biodiversity Efforts

- Biodiversity Index being designed for LA
- City of LA is located in one of the 35 recognized biodiversity hotspots in the world
- Biodiversity refers to: Natural Areas, Connectivity Measures, Protected Natural Areas, Pervious Surfaces, Access to Natural Areas, and Public Consultation Process (Project Review)
- Dense development, imperviousness, and intense uses are key pressures on biodiversity

### OneWater

- Increase climate resilience
- Balance environmental, economic, and societal goals
- Improve health of local watersheds

### What is guiding this effort?

- General Plan and Community Planning Policies offer guidance
- Emerging priorities and technologies
- Resiliency, climate adaptation, and biodiversity

### Current General Plan Conservation Policies

#### ***Conservation Element, Ch. 2.6***

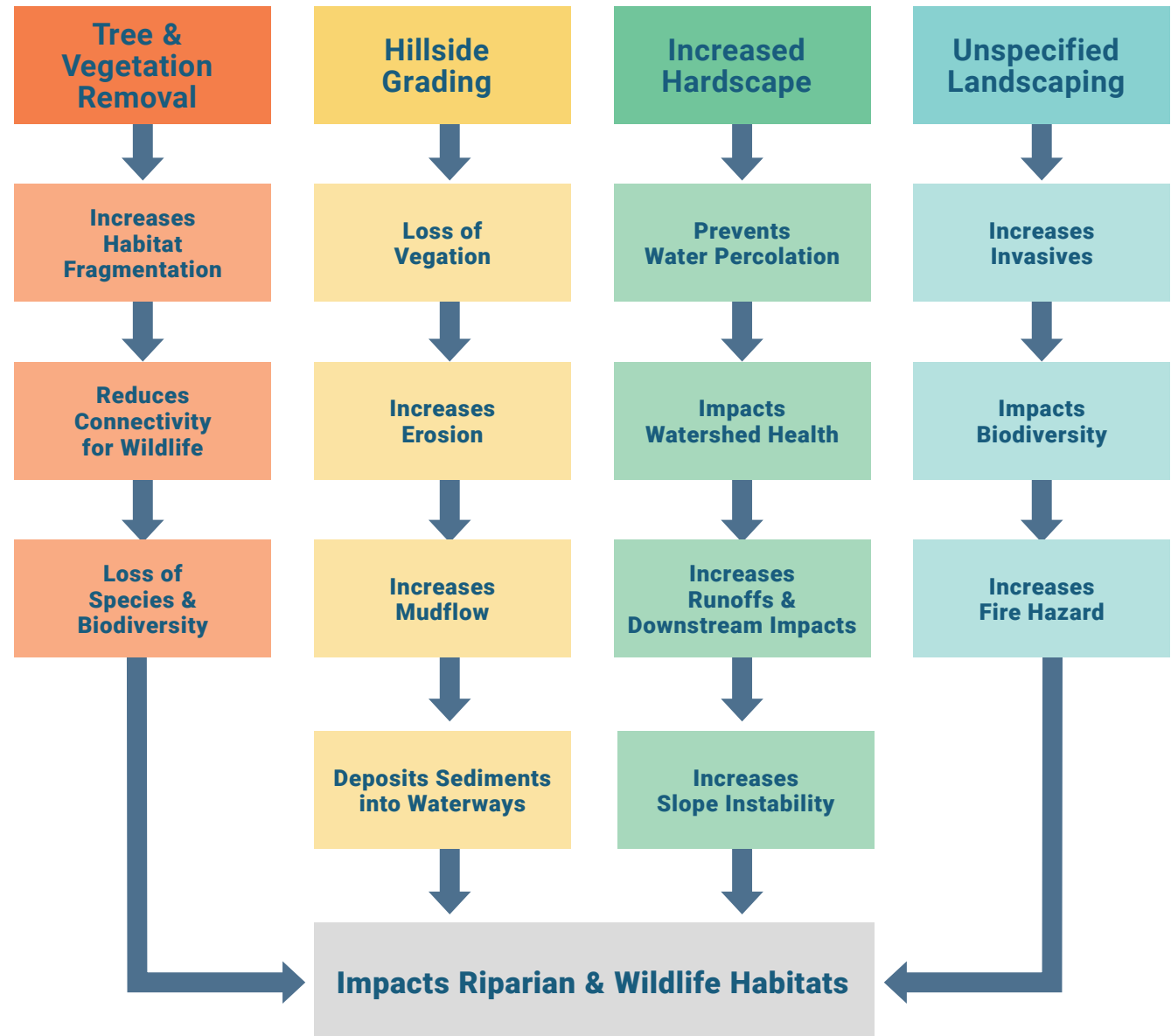
Protect and promote the restoration, to the greatest extent practical, of sensitive plant and animal species and their habitats.

#### ***Conservation Element, Ch. 2.12***

Preserve, protect, restore and enhance natural plant and wildlife diversity, habitats, corridors and linkages so as to enable the healthy propagation and survival of native species, especially those species that are endangered, sensitive, threatened or species of special concern.

Existing conditions in the Pilot Study area such as topography, vegetation and presence of water coupled with urbanized development have an affect on wildlife connectivity and habitat viability.

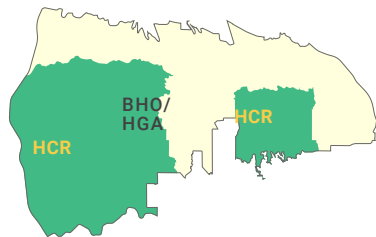
Revised regulations can help address the following conditions to better retain natural features and improve wildlife mobility between habitats:





While many regulations exist for hillsides, many do not address wildlife specifically. The following are existing regulations that pertain to hillside developments in the Pilot Study Area.

### Hillside Regulations



#### Hillside Grading Area

Within the Hillside Grading Area, projects involving import/export of 1,000 cubic yards or more are required to submit a soils and/or geotechnical report reviewed and approved by LADBS to include measures to mitigate impacts related to grading.

#### Baseline Hillside Ordinance (BHO)

Addresses out-of scale development in single-family zones throughout the City and related construction impacts in Hillside Areas. Additionally, BHO regulates the amount of grading for projects in the Hillside Area.

#### Hillside Construction Regulation (HCR)

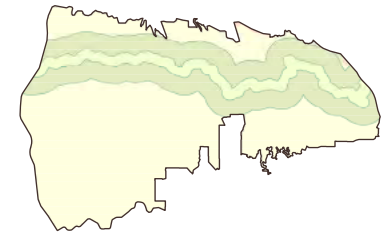
HCR District provides extra protections for related impacts of multiple single family home developments in hillside areas. For example, all single-family residential lots which abut a substandard street are limited to Import/Export no more than 75% of the "by-right" grading quantity (combined Cut and Fill) quantity maximums set out in the Zoning Code, and further limited to not exceed 6,000 cubic yards.

### Very High Fire Severity Zones



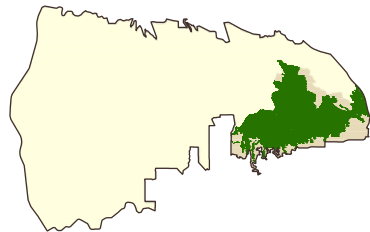
Regulations maintain defensible space of 100 feet from each side of construction, accounts for fuel modification, and encourages vegetative maintenance.

### Mulholland Specific Plan



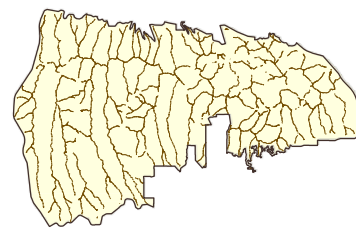
Specific Plan standards regulate hillside aesthetics including grading, design and landscaping requirements along Mulholland Drive and its right-of way, the Core Trail, and major vista points.

### Hollywood Community Plan: Slope Density



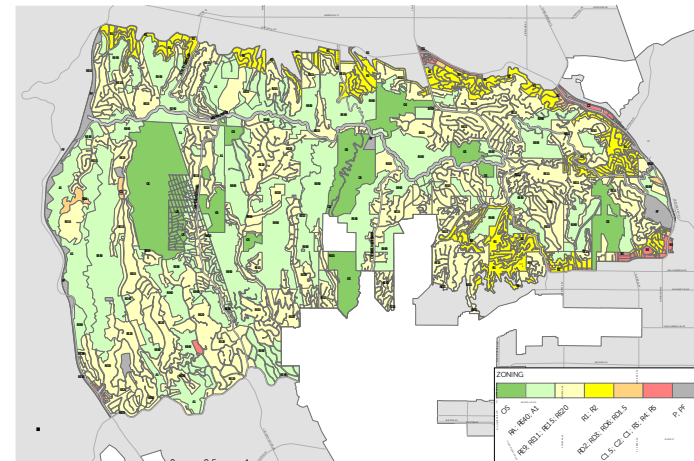
Limits density in areas with an average slope of 15 percent or more to that of a minimum density land use regulation (equivalent to RE 40 zone).

### Ridgeline Ordinance (Proposed)



Study evaluates potential ridgeline protection measures based on height and location of structures in proximity to identified ridgelines.

### Existing Zoning



### Three C's: Constraint, Capability, Compatibility

The Pilot Study recognizes the ecological sensitivity of the Santa Monica Mountains. Regulations being considered take into account not only the environmental Constraints but land Capability and development Compatibility in the Pilot Study area.

#### Setbacks / Fencing

- Limit types of structures built in setbacks
- Require permeable perimeter fencing in setbacks or allow impermeable fencing along interior setback line

#### Vegetation + Protected Trees

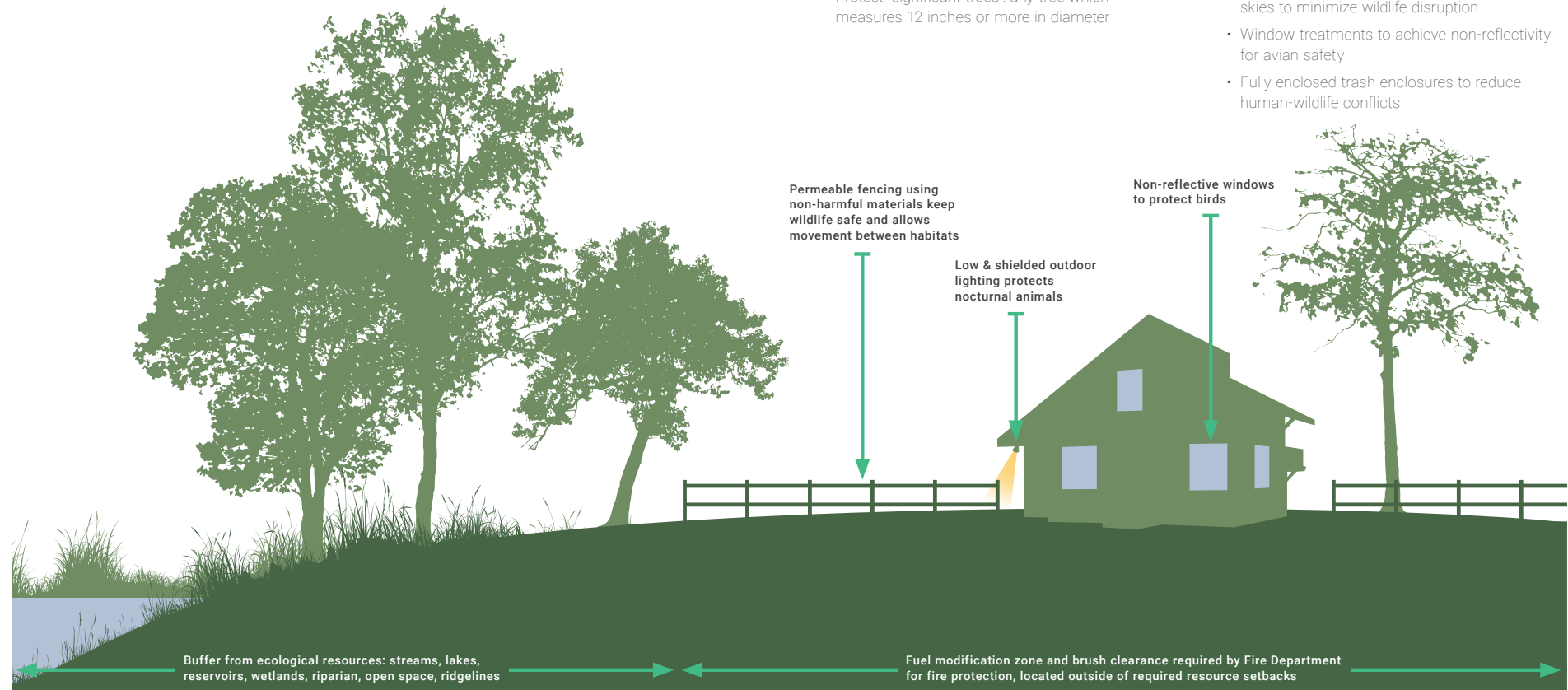
- Prohibit invasive plant species
- Protect "significant trees": any tree which measures 12 inches or more in diameter

#### Buffers

- Limit building/grading activity within buffers from ecological resources: streams, lakes, reservoirs, wetlands, riparian, flood zones, open space, ridgelines

#### Lighting / Windows / Trash Enclosures

- Outdoor lighting standards to promote dark skies to minimize wildlife disruption
- Window treatments to achieve non-reflectivity for avian safety
- Fully enclosed trash enclosures to reduce human-wildlife conflicts





## Species in the Santa Monica Mountains



*Mule Deer (Odocoileus hemionus)*  
Photo credit: Brendan Oneal/NPS  
<https://www.flickr.com/photos/santamonica-mountains/9096405471>



*Bobcat*  
Photo Credit: Lina Tanner  
[https://live.staticflickr.com/5138/5488097878\\_0bd4b72cef\\_k\\_d.jpg](https://live.staticflickr.com/5138/5488097878_0bd4b72cef_k_d.jpg)



*Coast Horned Lizard (Phrynosoma coronatum)*  
Photo credit: Joanna Gilkeson/USFWS  
[https://www.flickr.com/photos/usfws\\_pacificsw/34744262452](https://www.flickr.com/photos/usfws_pacificsw/34744262452)



*Greata's aster (Symphyotrichum greatae)*  
Photo credit: Nick Shah  
<https://www.flickr.com/photos/96785316@N08/14118458445/in/photolist-aAmtiA-aAs8bq-aAs84Q-aAppfp-aApoHV-aAs7JW-nvAMPk-3txmB5-oc7rP2>

### Station 1 - Introduction

### Station 2 - Overview

***Stations 3-7 display the regulations being considered in this Study.***

### Station 3 - Buffers

### Station 4 - Setbacks / Lot Coverage / Fencing

### Station 5 - Grading / Slopes

### Station 6 - Trees / Vegetation / Landscaping

### Station 7 - Windows / Lighting / Trash Enclosures

Please provide feedback:



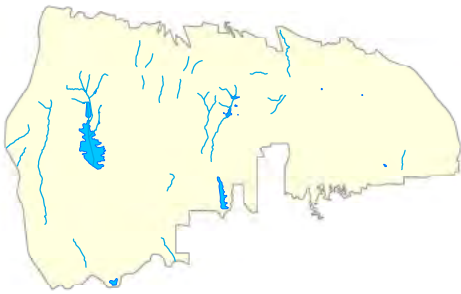
- Follow along with our survey as you visit the displays
- Fill out a comment card
- Look for the regulations in this box to match your responses

### Objectives

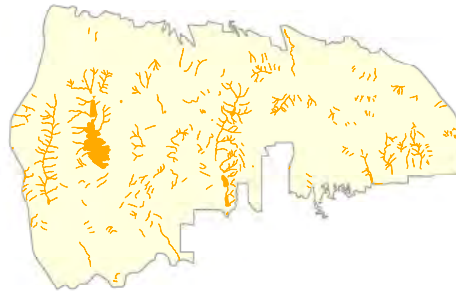
Preserve access to areas typically utilized by wildlife, maintain existing habitats, preserve and improve water quality by maintaining natural hydrology services, maintain watershed health and natural watershed systems.

Prioritizing the protection of biological resources while balancing development and conservation goals is critical to protecting our wildlife.

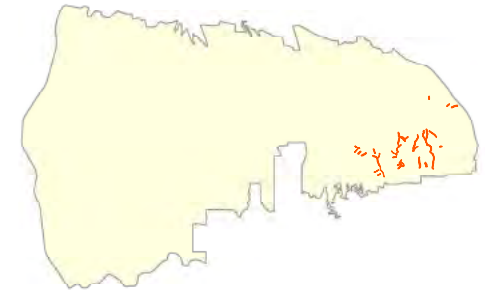
Requiring developments to maintain unobstructed distances from these resources will help ensure the protection of sensitive habitats.



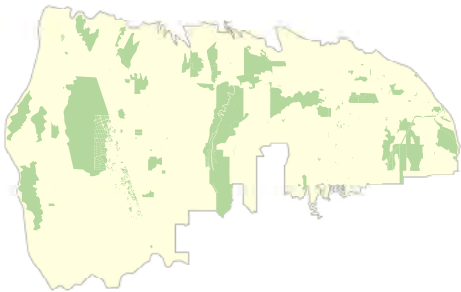
**Water** remains a significant resource for wildlife and vegetation. The National Hydrology Dataset is the most comprehensive survey of water sources, maintained and managed by the US Geological Survey to provide high quality, nationwide dataset for GIS mapping and analysis of water features and conveyance.



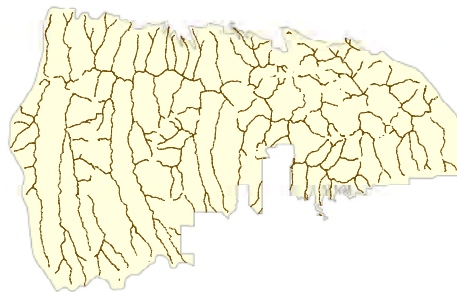
**Wetlands** are important features of the landscape that are beneficial for habitats and humans. In general terms, wetlands are identified by the presence of water saturating soil which determines the nature of soil development and the types of plant and animal communities living in the soil and its surface. The National Wetlands Inventory (NWI) established by the US Fish and Wildlife Service (FWS) provides information on location of wetlands as well as the type of wetlands to aid in conservation efforts.



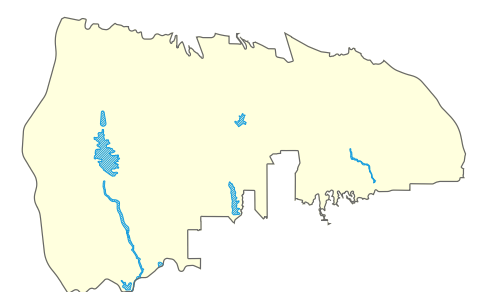
**Riparian** areas are plant communities contiguous to and affected by surface and subsurface hydrologic features of perennial or intermittent water bodies (rivers, streams, lakes, or drainage ways). They serve as important areas for wildlife habitats.



**Parks and Open Space** can serve as natural areas for wildlife habitats while providing recreational opportunities to people. This map shows all public parks and open spaces - City, County, State- as well as privately-owned properties belonging to the Santa Monica Mountains Conservancy.



**Ridgelines** represents the topmost geologic feature of a chain of mountains or hills that form a continuous elevation. They are largely undeveloped and serve as natural pathways for wildlife. The City's proposed Ridgeline Ordinance identifies ridgelines 600ft+ elevation.



**Flood Advisory Zones (2015) developed by FEMA:** This map displays Zone A areas prone to flooding and considered hazard areas associated with precipitation, which includes high risk for mudflow and debris flow. These events can occur in post-wildfire areas as well as non-fire impacted watersheds.



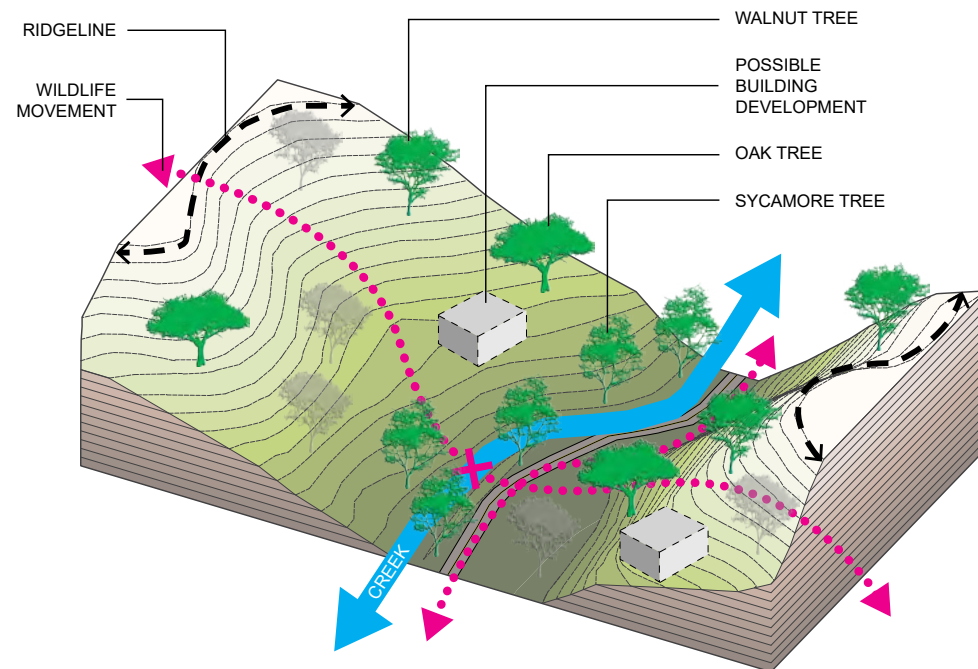
### Objectives

Preserve access to waterways and vegetated areas for wildlife connectivity, maintain existing habitats, preserve and improve water quality by maintaining natural hydrology services, maintain watershed health and natural watershed systems.

Streams and lakes represent a range of biotic and physical conditions and are a significant source of water for vegetation and wildlife habitats. The Santa Monica Mountains contain numerous perennial and ephemeral streams that support biodiversity in the region. Protection of water courses and natural flows will ensure the health of our ecosystems.

Sources: National Parks Services. Mediterranean Coast Inventory & Monitoring Network: Stream Condition Monitoring. Website: <https://www.nps.gov/im/mcdn/stream-condition.htm>

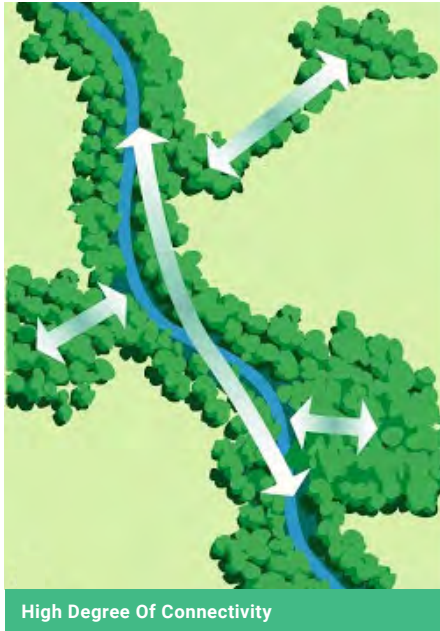
### Site Typology: The Creek Axonometric



### Regulations Considered:

- Retain an unobstructed 50-foot buffer from waterways, lakes and reservoirs to preserve year-round access to water sources and vegetation.
- Limit grading within 50-foot buffer.





High Degree Of Connectivity



Low Degree Of Connectivity

*A connected vegetative structure generally has higher level of functions than a fragmented landscape.*

Source: USDA. Stream Corridor Restoration: Principles, Process and Practices.



*Riparian Woodlands of the Santa Monica Mountains.*

<https://santamonicariparianwoodland.files.wordpress.com/2016/05/dsc00988.jpg>

## Objectives

Improve wildlife connectivity, preserve vegetated habitat areas, conserve water and protect water quality, and maintain watershed health.

In semi-arid Southern California, streams, wetlands and their accompanying riparian vegetation are important to ecosystem function. Riparian corridors and wetlands are also significant components of native species richness and plant diversity in Southern California. They harbor greater numbers of species including ferns, and shrubs shaded by a variety of trees such as sycamore, live oaks, and willow. Buffer zones along riparian communities help:

- landscape against erosion
- regulate nutrient cycling, by serving as conduits for materials movement
- act as barriers to fire spread
- provide food and shelter for a wide variety of animals
- provide important corridors for wildlife movement

Sources: <https://irma.nps.gov/DataStore/DownloadFile/452094>

## Regulations Considered:

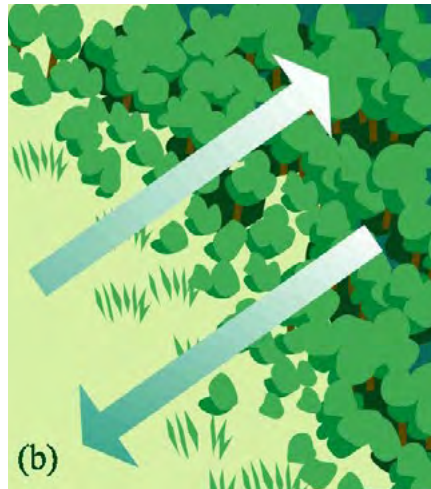
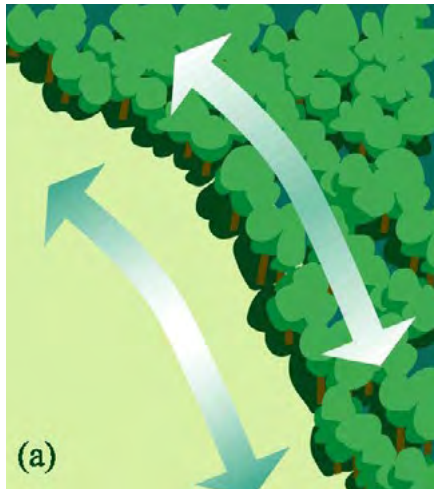
- Retain an unobstructed 50-foot buffer from riparian corridors and wetlands to preserve important habitat areas and wildlife connectivity.
- Limit grading within 50-foot buffer



### Objectives

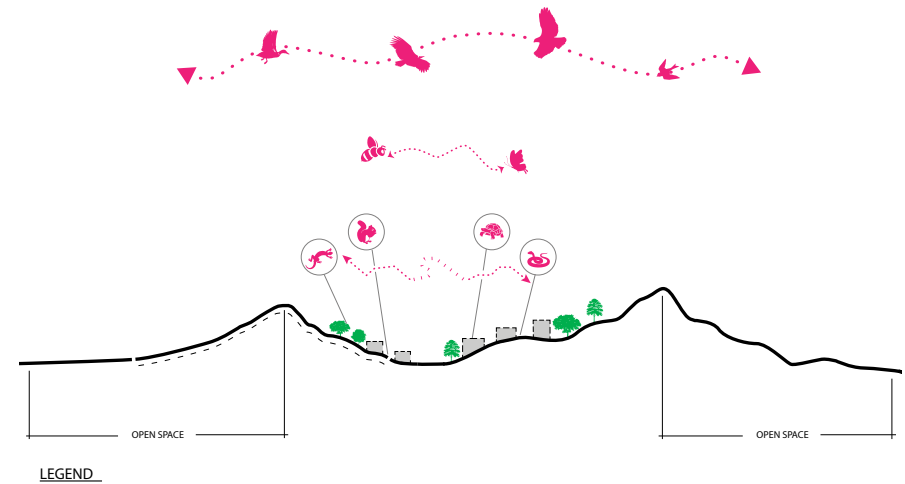
Improve wildlife connectivity, conserve vegetated areas as habitat, provide connections to open space areas, water conservation, watershed health.

Large open space and park areas can conserve entire natural habitats and ecosystems, preserving species diversity and helping to maintain native species populations from becoming endangered or extinct. They may function as Wildlife Habitat Blocks (WHB) which in basic terms are areas where animals may find protective cover, food and water.



Gradual edges occur in natural settings, while abrupt edges tend to discourage movement between ecosystems. A buffer zone between development and park or open space will allow for more biodiversity and better wildlife movement.

Source: USDA. Stream Corridor Restoration: Principles, Process and Practices.



### Regulations Considered:

- Retain an unobstructed 50-foot buffer from parks and undeveloped open spaces to preserve habitat areas and connectivity by ensuring access for wildlife.
- Limit grading within 50-foot buffer.





### Objectives

Improve wildlife mobility and connectivity opportunities along natural unobstructed features such as ridgelines, steep slopes, and flood prone areas such as ravines and canyon bottoms; Maximize water percolation in natural drainageways; Improve watershed health by maintaining natural percolation opportunities and upland water flow systems.

#### Ridgelines

The unique topography of the hillsides make it attractive to wildlife and humans. Ridgelines can act as informal pathways for wildlife movement. Ridgelines have habitat and scenic value which can be marred by obstructions such as roads and buildings.

#### High-Risk Flood Zones

Flood zones are a natural part of hillside environments and serve as important drainage and watershed systems. Limiting development within high-risk flood prone areas will help ensure safety of residents as well as preserve areas for wildlife.



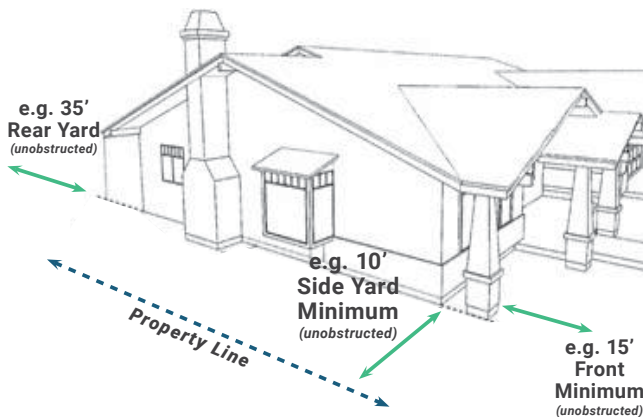
### Regulations Considered:

- Retain an unobstructed 50-foot buffer from identified ridgelines and high-risk flood-prone areas to preserve habitats areas and wildlife connectivity and improve watershed quality.
- Limit grading within 50-foot buffer.



### Objectives

Retain unobstructed spaces for vegetation and wildlife. Minimize land and vegetation disturbance. Retain existing mature trees and native, drought and fire resistant vegetation. Provide connections for wildlife between properties and minimize obstacles to open space. Retain spaces between structures to address fire safety.



### Setbacks

Front, side and rear yard areas may provide area for trees and vegetation providing cover and foraging areas for birds and small mammals. Leave setback areas unobstructed to allow wildlife pathways.

### Lot Coverage

Minimize impervious surface areas to help with drainage and increase water percolation in the hillsides.

### Regulations Considered:

#### Setbacks

- Provide front, side, and rear cumulative setbacks to allow some flexibility for building siting while leaving space for vegetation and wildlife mobility.

#### Examples

Sidyard Cumulative 20'      Front + Rear Cumulative 50'

Option A: 10' + 10'

Option A: 25' + 25'

Option B: 5' + 15'

Option B: 15' + 35'

- Limit structures allowed in setback areas in order to limit disturbance to vegetation and habitats (e.g., garages, patios, pools, tennis/basketball courts)

#### Lot Coverage

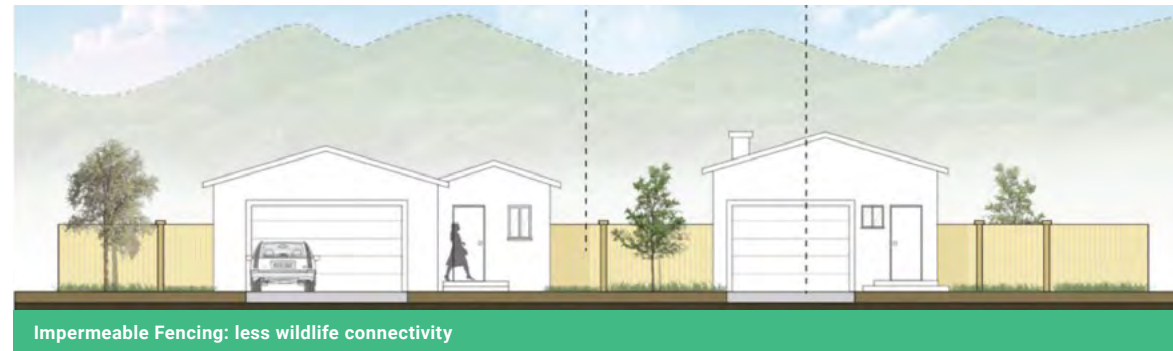
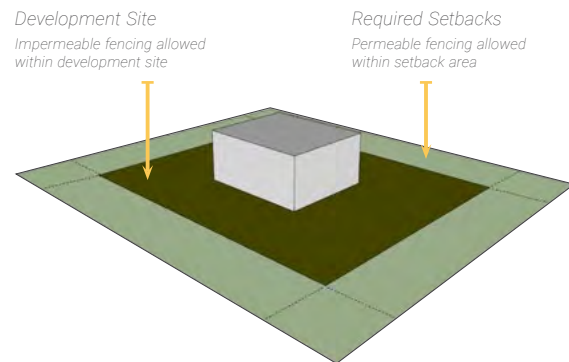
- Include impervious areas such as garages, patios, pools, tennis/basketball courts in lot coverage calculations.

### Objectives

Maintain wildlife mobility options, retain vegetated areas between properties to improve porosity between different areas, reduce fragmented habitat areas, improve dangerous conditions by regulating unsafe fencing materials.

### Fencing

Locating fencing away from the setback area allows for pathways that support wildlife mobility and foraging. Encouraging unobstructed space between properties encourages wildlife movement and provides greater access to food, water, shelter and breeding. Limiting the location of impermeable fencing and prohibiting the use of hazardous fencing material can lead to greater wildlife safety by minimizing direct harm and stress for animals.



### Three P's: Permeability, Privacy, Protection

**Permeability:** Increase site permeability through open fence designs to limit physical obstructions to wildlife movement.

**Privacy:** Achieve privacy through the use of live fencing, hedges and other permeable designs.

**Protection:** Ensure safety and security for residence.

### Regulations Considered:

#### Location

- No fencing within setback area unless permeable.
- Impermeable/solid fencing should locate outside of setback areas.

#### Material

- Prohibit fencing material that could be hazardous to wildlife such as spikes, glass, razors, nets, uncapped tops or material that could pose fire hazards, such as highly combustible material.

#### Design

- Permeable fencing design that leaves ample space between posts and the ground.





### Objectives

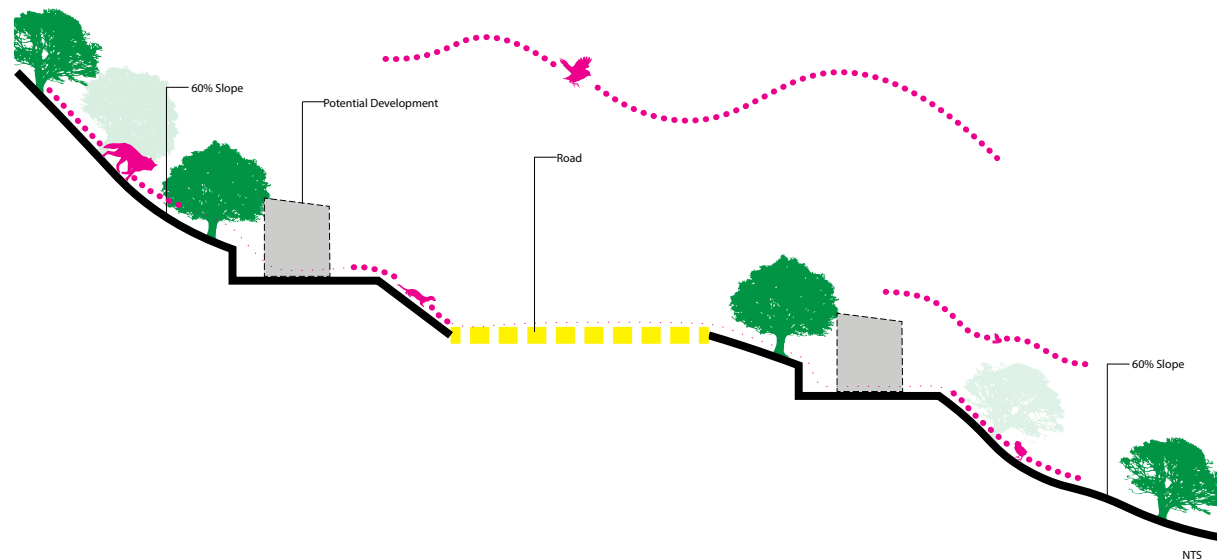
Minimize land disturbance and alteration of topographic features and biological resources, maintain mature hillside vegetation and trees, improve natural water percolation and minimize increased water flows due to impervious surfaces, minimize development on steepest slopes that have the potential to support functional connectivity and wildlife movement.

### Grading

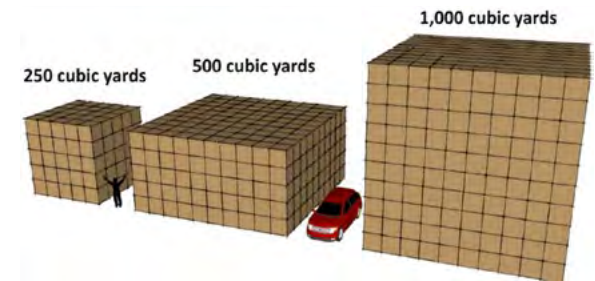
Preparation of a site for development in the hillsides may require grading, and/or vegetation and tree removal to accommodate new structures. While the cumulative effect of land disturbance is not easily assessed, grading alters the natural hillside topography and increases erosion potential and contributes to overall loss of soil and vegetation significantly altering existing habitats. Existing grading allowances in the hillsides range from 1,000 cubic yards for average single family lots to 6,600 cubic yards for larger estate lots.

### Slopes

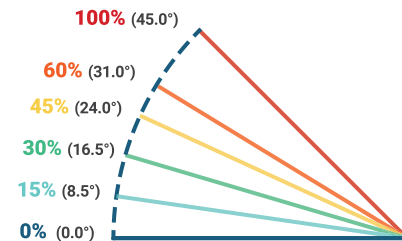
Much of the Pilot Study area is hillside topography susceptible to landslides. These steeply sloped areas can be more susceptible to fire hazards due to their terrain and are subject to limitations such as brush clearance and allowable buildable area restrictions. Current regulations calculate allowable buildable area based on slope bands with decreased allowable area in the highest slope bands (45-100+%). However, development is still allowed on the steepest slopes (60+%).



### Cubic Yard Comparisons



### Slope Bands Represented as Angles



### Regulations Considered:

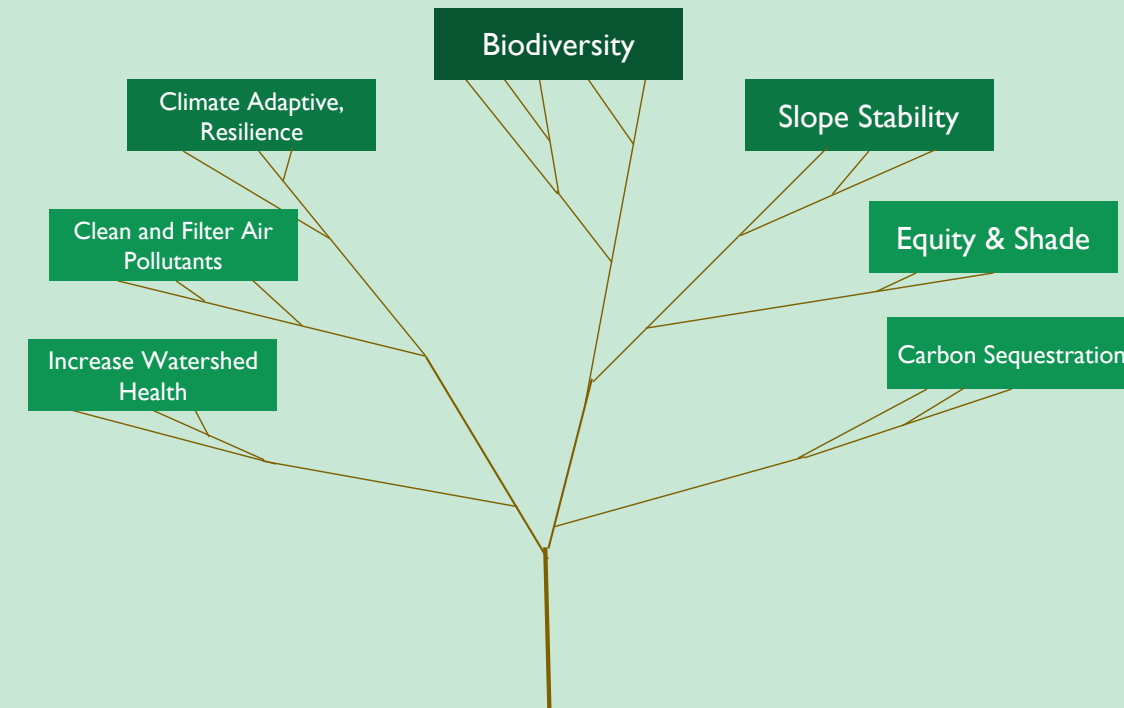
- Reduce amount of grading allowed on site, especially on steepest slopes, to minimize the removal and disturbance of biological resources, landscape features and undeveloped areas.
- Limit developments on steepest slopes (60+%) to reduce erosion potential and minimize altering of natural topography.

### Objectives

Retain trees to support habitat preservation, biodiversity, wildlife connectivity, climate adaptation, carbon sequestration, reduce air pollution, provide shade and cool temperatures on extreme heat days, improve watershed health, slope stability, and improve public health by fostering mental health benefits.

#### Trees

Preserving and maintaining mature trees in the hillsides serves to provide habitat and cover for wildlife mobility, food and foraging opportunities, as well as helps to maintain the critical function of our ecological services and climate adaptation. The loss of mature trees takes years to restore, especially when mature trees are removed and replaced with younger tree specimens. Limiting the removal of trees and requiring a higher replacement rate can lead to the retention of habitats for wildlife to forage, shelter, and reproduce.



#### Tree Species Protected and Pending under Existing Ordinance (Protected Trees Ordinance)

- Oak tree including Valley Oak and California Live Oak, or any other tree of the oak genus indigenous to California but excluding the Scrub Oak
- Southern California Black Walnut
- Western Sycamore
- California Bay
- Mexican Elderberry (Pending)
- Toyon (Pending)

#### Regulations Considered:

Retain a healthy tree canopy by expanding the protected trees species list and designating mature trees of a certain size as "significant".

- Expand list of protected trees
- Add "significant trees" (12" or greater in diameter) protection
- Add minimum tree requirement based on size of lot (i.e. 1 tree/1000 sq ft) or administer fee for trees removed.
- Increase replacement ratios for tree removal
- (i.e. # trees required for every tree removed)
- Require removal of fire hazard trees
- (i.e. blue gum eucalyptus)





## Objectives

Maintain undisturbed vegetation, encourage native and drought tolerant landscapes, stabilize slopes by minimizing disturbance to vegetated slopes, improve water quality/percolation, minimize fire hazards by firewise landscaping , and habitat preservation.

## Vegetation / Landscaping

Native vegetation serves as an ecological cornerstone for the region and is crucial for supporting native insects and animals. Vegetation patches or corridors that are closer together, rather than dispersed, facilitate greater wildlife connectivity. The amount of vegetation preserved on site is crucial for maintaining biodiversity.

Fire

Fire is a natural and ecologically important part of the Santa Monica Mountains ecosystem. Species such as chaparral, the primary vegetation in the Santa Monica Mountains require the intense heat of fire to reproduce. Managing native vegetation to maintain habitat function while meeting brush clearance requirements can facilitate human-wildlife coexistence in the hillsides.

## Definitions

**Brush Clearance:** required treatment or thinning of vegetation to reduce fire hazards, meet requirements made by Los Angeles Fire Department (refer to diagram on right)

**Drought tolerant:** plants acclimated to Southern California's droughts and tolerant of low-water conditions

**Native plants:** vegetation adapted to the local climate and soil conditions where they naturally occur

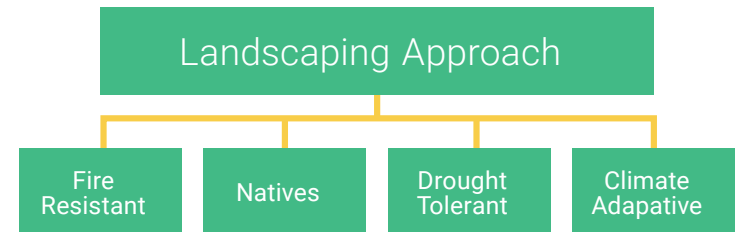
**WUCOLS (Water Use Classification of Landscape Series):** plant list that provides guidance regarding the water needs of landscape species



Photo credit: Theodore Payne Native Plant Garden Tour  
<http://www.2017.nativeplantgarden tour.org/wp-content/uploads/garden-4-valley-glen-a.jpg>  
<http://www.smconserancy.org/wp-content/uploads/2017/12/Gottlieb-15-1.jpg>



Source: Los Angeles Fire Department Brush Clearance  
<https://www.lafd.org/fire-prevention/brush/brush-clearance-requirements>



## Regulations Considered:

## Vegetation

- Prohibit removal of native vegetation on slopes >60%, unless required by LA Fire Department for brush clearance.

## Landscaping

- Prohibit invasive species.
- Require native, drought tolerant vegetation in setbacks/buffers.
- Plantings required to comply with WUCOLS.

### Objectives

Improve avian safety conditions by reducing avian injuries and death caused by reflective windows.

### Windows

Reflective windows can cause avian collisions when birds see reflections of natural scenery and vegetation reflected on window surfaces. Using window treatments to achieve non-reflectivity can help reduce the danger reflective windows pose to birds.



Problem: Transparency



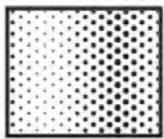
Problem: Reflection



Problem: Transparency



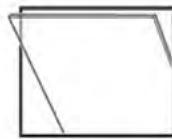
Problem: Beacon Effect



Solution: Screen / Scrim / Fritting



Solution: Vegetation Near Building



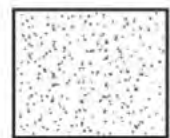
Solution: Glass Tilted Downward



Solution: Lights Out



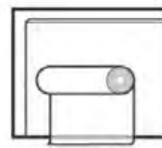
Solution: Visual Noise



Solution: Non-Reflective Material



Solution: Non-Reflective Glass



Solution: Use of Plastic Films, Diachroic Coatings and Tins on Facade

Photo credit: NYC Audubon Society, Scape Studio, Columbia University  
<https://www.scapestudio.com/projects/bird-safe-building-guidelines/>



Etched Glass Treatment

Photo credit: GWWO Architects  
<https://www.gwwoinc.com/news-insights/designing-for-birds-is-not-just-for-the-birds>



Angled Glass

Photo credit: Laura Erickson/Binoculars.com  
<https://www.laurierickson.com/way-to-help/6/>



UV-Reflective Glass Treatment

Photo credit: Ornillux  
<http://www.ornillux.com/>



Fritted Glass Treatment

Photo credit: Feather Friendly  
<https://www.conveniencegroup.com/featherfriendly/feather-friendly>

### Regulations Considered:

#### Windows

Require windows with non-glare/non reflective glass or utilize methods to achieve non-reflectivity.

#### Options:

- Etched or sandblasted windows: any pattern can be etched or sandblasted onto the glass.
- Angled glass: position windows downward (20 degrees), the glass won't reflect the sky and trees.
- UV-reflective glass: UV-reflective glass, such as Ornillux is visible to birds and transparent to humans
- Fritted glass windows: The closely spaced dots of opaque glass fused on the outer surface makes them highly visible to birds



### Objectives

Reduce lighting intrusion and interruptions to nocturnal animal activities such as foraging and hunting, minimize occurrences of human wildlife interaction by removing attractive nuisances in unenclosed trash areas.

### Trash Enclosures

Exposed or easily accessible trash attracts larger mammals such as raccoons, opossums and coyotes. Securely enclosing trash receptacles can minimize human-wildlife conflicts and reduce hazards to wildlife that scavenge through plastic and paper.



<https://witzkeberry.com/wp-content/uploads/marvelous-outdoor-trash-can-enclosures-ideas.jpg>



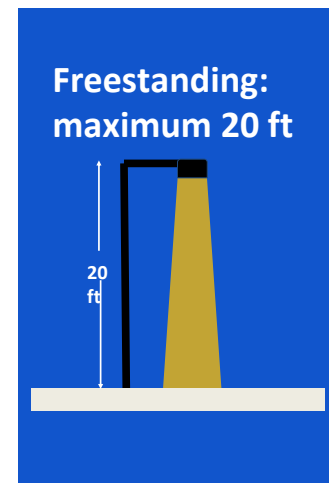
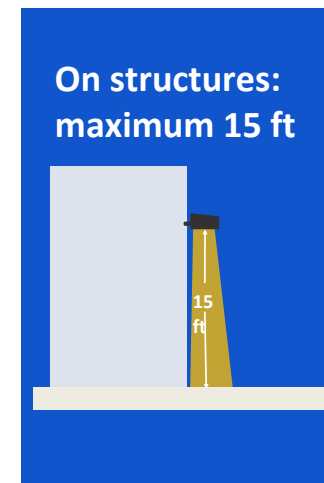
<https://www.internetgardener.co.uk/shop/garden-buildings/bin-stores/rowlinsonheritage-apex-double-wooden/p/154092>

### Lighting

Shielding and directing lighting away from natural areas, limiting brightness and fixture heights, and requiring "warmer" lights can reduce lighting from disrupting wildlife mating, feeding, and migratory patterns.



<https://www.insidescience.org/news/astonomers-encourage-cities-shield-outdoor-lighting>



### Regulations Considered:

#### Trash Enclosures

- Location/accessibility:
  - Require trash receptacles be enclosed
  - Locate trash receptacles within building site area, not in setbacks
- Standards:
  - Utilize enclosures that are designed with doors that can latch or cover
  - Require minimal gaps and/or openings covered to prevent large mammal access.

#### Lighting

- Require fully shielded outdoor light fixtures.
- Prohibit specific outdoor lighting: drop-down lenses, mercury vapor lights, ultraviolet lights, searchlights, laser lights, or other lighting that flashes, blinks, alternates or moves.
- Outdoor lighting fixtures installed above 15' shall have a maximum output of no greater than 400 lumens.
- Limit outdoor light fixture heights:
  - Attached fixtures:
    - On Structures: Max 15 ft
    - On Fences: no higher than height of fence
  - Freestanding fixtures:
    - Walkways, driveways, hardscaping: 2 ft max
    - All others: 20 ft (height) max



## Community Feedback

- Establish buffer between wildlife and development
- Prioritize wetlands and riparians over development
- Prioritize tree retention; tree removal for non-native trees should be replaced with native trees
- Change vegetation management approach
- Minimize dangerous rodenticide use
- Consider hillside development fee for wildlife based on height and square footage of structures
- Regulate lighting for "dark skies" - less lighting
- Expand pilot study boundary to include Griffith Park

## Next Steps

- Review feedback
- Continue to meet with partners
- Draft ordinance
- Public Hearings
- Adoption

## Events + Conferences

- P-22 Day (2018 & 2019)
- Open House (Nov 2018)
- Earth Day 2019
- UCLA Sustainability Grand Challenge
- International Wildlife Conference 2019

## Partners + Consulted Parties (Partial List)

- LA Sanitation (LASAN)
- LA Bureau of Engineering (BOE)
- LA Urban Forestry
- Ventura County
- LA County
- Santa Monica Mountains Conservancy (SMMC)
- National Park Service (NPS)
- Citizens for Los Angeles Wildlife (CLAW)
- National Wildlife Federation (NWF)
- Nature Conservancy - Biodiversity Analysis in Los Angeles (BAILA)
- Cal Poly Spring 2019 Landscape Architecture Studio

**Thank you for  
participating!**



## Timeline

